



# **THE BIG BOOK OF PLANES**

AN ILLUSTRATED HISTORY



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# ACAZ - ADAM - AEROPRAKT - AERFER AERITALIA - AEROMERE

Belgian aircraft designer and manufacturer ACAZ was established in the 1920s, and was officially known as Ateliers de Construction Aéronautique de Zeebruges. The company made only prototypes and were gone in a few short years. Adam Aircraft Industries is also a defunct manufacturer, but the US based company produced several aircraft between 1998 and 2009. The final Adam model was the Adam A700, also known as the AdamJet. Aeroprakt is a Ukranian company established in 1991 and still operating today. The company produces mainly ultralights and light aircraft in kit form, as well as ready-to-fly models. In 1957, Italian manufacturer Aeromere was founded to build sailplanes for Italy, as well as Falco aircraft destined for the USA. Also in Italy, Aerfer was founded in 1955 when Officine Ferroviarie Meridionali and IMAM merged. In 1969, Aerfer merged with Fiat's aviation division and Salmoiraghi to form Aeritalia. The list of Aerfer aircraft is an impressive one and included Italy's first supersonic jet. Following the merger and the subsequent establishment of Aeritalia, the company has continued in successful operation.

|                      |                           |
|----------------------|---------------------------|
| Plane                | ACAZ C.2                  |
| Year of Introduction | 1926                      |
| Type                 | Prototype Fighter Biplane |
| Engine               | Hispano-Suiza 12Ha V-12   |
| Service Ceiling      | Unknown                   |

The ACAZ C.2 was a prototype constructed from duralumin. It took off for a 1928 expedition to the Belgian Congo, but never made it out of Belgium.





|                      |                                    |
|----------------------|------------------------------------|
| Plane                | Adam A500                          |
| Year of Introduction | 2002                               |
| Type                 | Civil Transport - 6 Seats          |
| Engine               | Teledyne Continental TSIO-550E x 2 |
| Service Ceiling      | 25,000 ft (7,600 m)                |

The twin-engined Adam 500 was a development of the company's earlier M-309 CarbonAero. The two engines were mounted in a push-pull configuration.



|                      |                                |
|----------------------|--------------------------------|
| Plane                | Aerfer Sagittario 2            |
| Year of Introduction | 1956                           |
| Type                 | Lightweight Fighter            |
| Engine               | Rolls-Royce Derwent 9 Turbojet |
| Service Ceiling      | 39,370 ft (12,000 m)           |

The Saggitario 2 was a prototype developed by Aerfer, intended for tactical support or interceptor duties. It was based on the original Sagittario and continued in development as the Ariete.

|                      |   |
|----------------------|---|
| Plane                | Aerfer Ariete   |
| Year of Introduction | 1958  |
| Type                 | Prototype Fighter   |
| Engine               | Rolls-Royce Derwent 9 Turbojet Rolls-Royce Soar RSr2 Turbojet |
| Service Ceiling      | 39,360 ft (12,000 m)  |

The Ariete was built as a refined version of the company's earlier Sagittario 2. The second Rolls-Royce engine was added for additional climbing or sprinting power.



|                      |                                 |
|----------------------|---------------------------------|
| Plane                | Aeroprakt A-24 Viking           |
| Year of Introduction | 2000                            |
| Type                 | Light Sport Amphibian - 3 Seats |
| Engine               | 4-cyl Rotax 912ULS              |
| Service Ceiling      | Data Unavailable                |

The Aeroprakt A-24 Viking was manufactured in kit form for the home builder. The engine of the high-winged aircraft was mounted on the wing's leading edge above the cabin.



|                      |   |
|----------------------|---|
| Plane                | Aeritalia G.222                           |
| Year of Introduction | 1956                                      |
| Type                 | Military Transport                        |
| Engine               | General Electric T64-GE-P4D Turboprop x 2 |
| Service Ceiling      | 25,000 ft (7,620 m)                       |

The Aeritalia G.222 was the first aircraft of its kind designed to a NATO specification. The USA purchased several and renamed them C-27A Spartans, and further development saw the model become the Alenia C-27J Spartan.



|                      |                            |
|----------------------|----------------------------|
| Plane                | Aeroprakt A-22 Foxbat      |
| Year of Introduction | 1999                       |
| Type                 | Micro/Ultralight - 2 Seats |
| Engine               | 4-cyl Rotax 912ULS         |
| Service Ceiling      | 10,000 ft (3,048 m)        |

The A-22 Foxbat was designed by Yuri Yakovlev for Aeroprakt. It was known as the Valor in the USA and has since been dubbed the Vision.





# AERMACCHI (MACCHI)

Italy's Aermacchi was established in 1912 and began building the Nieuport monoplane under license. During World War I, the company produced flying boats, monoplanes and fighter planes to a number of specifications, continuing on to produce civilian aircraft in the inter-war years. Included among those aircraft were Aermacchi's notable Schneider Trophy models. During World War II, the company produced the Macchi Folgore and Veltro fighters under Mussolini, and it wasn't until 1948 that the next Macchi civilian plane would be produced. Designing light aircraft in the late 1940s and early 1950s, Aermacchi moved into aerobatic and military trainers. The 1960s saw more military utility models arrive, before the first ground-attack plane was released in the early 1970s. In 2003, Aermacchi became part of the Alenia Aermacchi Group. Its current program includes involvement in fuselage and aeronautics design for Alenia Aeronautica and Embraer, as well as producing wing components for the Panavia Tornado. Similar work is ongoing for the Eurofighter and the C-27J military transport.

|                      |  |
|----------------------|--|
| Plane                | Aermacchi MB-339                         |
| Year of Introduction | 1979                                     |
| Type                 | Light Attack Aircraft / Advanced Trainer |
| Engine               | Rolls-Royce Viper Mk. 632 Turbojet       |
| Service Ceiling      | 48,000 ft (14,630 m)                     |

The first flight of the Aermacchi MB-339 took place in 1976, with deliveries commencing in 1979 to the Italian Air Force. The aircraft accommodated both instructor and student for training purposes.





|                      |                                       |
|----------------------|---------------------------------------|
| Plane                | Aermacchi MB-326                      |
| Year of Introduction | 1962                                  |
| Type                 | Light Military Jet                    |
| Engine               | Bristol Siddeley Viper Mk 11 Turbojet |
| Service Ceiling      | 41,000 ft (12,500 m)                  |

The Aermacchi MB-326 was originally designed as a two-seat training aircraft and went on to become a light military jet. It was in military service in over 10 countries, and over 600 were produced.



|                      |                     |
|----------------------|---------------------|
| Plane                | Aermacchi MB-308    |
| Year of Introduction | 1947                |
| Type                 | Light Aircraft      |
| Engine               | Continental C85     |
| Service Ceiling      | 14,764 ft (4,500 m) |

Also known as the Macchi MB.308, the aircraft was produced during World War II and became one of the most manufactured Italian models. Many MB-308s were used in aero clubs, and others went to Argentina.



|                      |                          |
|----------------------|--------------------------|
| Plane                | Macchi M.416             |
| Year of Introduction | 1951                     |
| Type                 | Single Engine Trainer    |
| Engine               | Avco Lycoming O-435 A F6 |
| Service Ceiling      | Data Unavailable         |

The low-winged Macchi M.416 was intended for military flying schools and ended up as a general aviation trainer all over Italy. It was a copy of the Fokker S-11, produced under license from Fokker.



|                      |                                     |
|----------------------|-------------------------------------|
| Plane                | Macchi C.202 Folgore                |
| Year of Introduction | 1941                                |
| Type                 | Fighter Aircraft - World War II     |
| Engine               | Alfa Romeo RA.1000 R.C.41-1 Monsone |
| Service Ceiling      | 37,730 ft (11,500 m)                |

The C.202 Folgore (Thunderbolt) operated on all fronts during World War II. It was a very efficient dog fighter but had constant radio problems that forced pilots to 'waggle' their wings in order to communicate with each other.



|                      |                               |
|----------------------|-------------------------------|
| Plane                | Alenia Aermacchi M-346 Master |
| Year of Introduction | 2004                          |
| Type                 | Transonic Trainer             |
| Engine               | Honeywell F124-GA-200 (x 2)   |
| Service Ceiling      | 45,000 ft (13,716 m)          |

The Alenia Aermacchi M-346 Master began life as a co-development with Yakovlev before each company began working separately on their own versions. The air forces of Poland, Singapore, Israel and Italy all use the M-346 Master.



|                      |                                 |
|----------------------|---------------------------------|
| Plane                | Macchi C.200 Saelta             |
| Year of Introduction | 1937                            |
| Type                 | Fighter Aircraft - World War II |
| Engine               | Fiat A.74 R.C.38                |
| Service Ceiling      | 29,200 ft (8,900 m)             |

The C.200 Saelta was a remarkably agile fighter aircraft used by the Italian Air Force during World War II. It flew more sorties than any other Italian aircraft and was retired in 1947.



|                      |                               |
|----------------------|-------------------------------|
| Plane                | Alenia Aermacchi M-346 Master |
| Year of Introduction | 2004                          |
| Type                 | Transonic Trainer             |
| Engine               | Honeywell F124-GA-200 (x 2)   |
| Service Ceiling      | 45,000 ft (13,716 m)          |

The M-346 Master shares its purpose with a few other aircraft, including the Hongdu L-15, the Yakovlev Yak-130 and the EADS Mako/HEAT among others.





# AERO COMMANDER - AERO SPACELINES

Aero Commander was established as an aircraft manufacturer in 1944. The company designed and manufactured twin-engined transport aircraft under the auspices of a former Douglas Aircraft Company engineer, Ted Smith. The first model was the Aero Commander, with preliminary design complete in 1946 and the first prototype taking to the air in 1950. Aero Commander was acquired in 1958 by Rockwell-Standard, who sold its Aero Commander division in 1981 to Gulfstream Aerospace. Aerospacelines Inc. began life in 1960 with the sole aim of converting Stratocruisers (Boeing 377s) into enormous 'Guppy' transport planes that could carry huge payloads that included space exploration craft. With its only customer being NASA, the first contract was to transport the Titan GVL (Gemini Program) from Maryland USA to Cape Canaveral. The company was acquired in 1967 by Unexcelled Inc., and then by Tractor Aviation before becoming a separate entity named Conroy Aircraft. More Guppy aircraft were built by Conroy until the company was closed in 1972. Today, a single Super Guppy remains in service transporting NASA vehicles.



|                      |                                       |
|----------------------|---------------------------------------|
| Plane                | Aero Spacelines Mini Guppy            |
| Year of Introduction | 1967                                  |
| Type                 | Wide Bodied Cargo Aircraft            |
| Engine               | Pratt & Whitney R-4360 Wasp Major x 4 |
| Service Ceiling      | Data Unavailable                      |

Aero Spaceline's Mini Guppy was released two years after the original Guppy. There were two variants of the plane built, and the floor of the Mini Guppy was a widened Boeing B-333 fuselage.



|                      |                                     |
|----------------------|-------------------------------------|
| Plane                | Aero Commander (Jet Commander) 1121 |
| Year of Introduction | 1965                                |
| Type                 | Business Jet                        |
| Engine               | Garrett TFE731-3-1G Turbofan x 2    |
| Service Ceiling      | 45,000 ft (13,720 m)                |

Aero Commander sold manufacturing rights for the Aero Commander to Israel Aircraft Industries (IAI). For over two decades, IAI has produced the Aero Commander 1121 as the IAI Westwind.



|                      |                                |
|----------------------|--------------------------------|
| Plane                | Aero Commander 500             |
| Year of Introduction | Since 1952                     |
| Type                 | Light-Twin Turboprop Aircraft  |
| Engine               | 6-cyl Lycoming IO-540-E1B5 x 2 |
| Service Ceiling      | 19,400 ft (5,913 m)            |

The Aero Commander 500 was originally a product of the Aero Design & Engineering Co in the later 1940s, before the company was renamed Aero Commander. Since 1952, the model has been known as the Aero Commander, Rockwell Commander and Shrike Commander.



|                      |                                |
|----------------------|--------------------------------|
| Plane                | Rockwell YU-9A                 |
| Year of Introduction | Post 1952                      |
| Type                 | Light-Twin Turboprop Aircraft  |
| Engine               | 6-cyl Lycoming IO-540-E1B5 x 2 |
| Service Ceiling      | 19,400 ft (5,913 m)            |

The Rockwell YU-9A was also the Aero Commander L-26. Three models were built for the United States Army.



|                      |                                       |
|----------------------|---------------------------------------|
| Plane                | Aero Spacelines Pregnant Guppy        |
| Year of Introduction | 1962                                  |
| Type                 | Wide Bodied Cargo Aircraft            |
| Engine               | Pratt & Whitney R-4360 Wasp Major x 4 |
| Service Ceiling      | Data Unavailable                      |

The Aero Spacelines Pregnant Guppy was the company's first model. The release of the Pregnant Guppy in 1962 was the inspiration for later wide-bodied aircraft, including the Boeing Dreamlifter.



|                      |                                |
|----------------------|--------------------------------|
| Plane                | Aero Commander 500 BA          |
| Year of Introduction | After 1952                     |
| Type                 | Light-Twin Turboprop Aircraft  |
| Engine               | 6-cyl Lycoming IO-540-E1B5 x 2 |
| Service Ceiling      | 19,400 ft (5,913 m)            |

A number of later models of the Aero Commander 500 were released, including the 500A, 500B and 500BA. From the 500B release, the Lycoming engines were fuel injected.

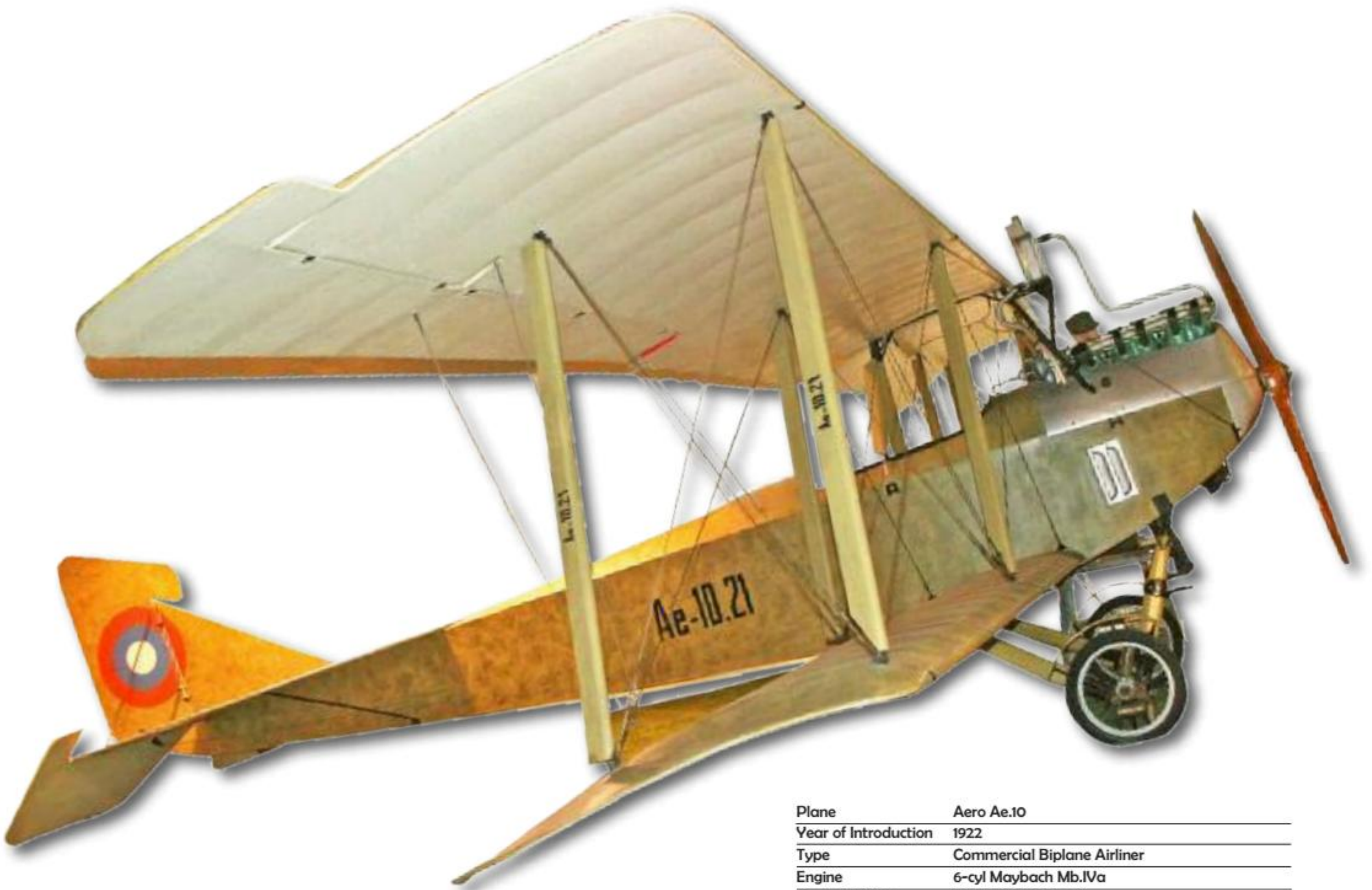
|                      |                                |
|----------------------|--------------------------------|
| Plane                | Aero Spacelines Super Guppy    |
| Year of Introduction | 1965                           |
| Type                 | Wide Bodied Cargo Aircraft     |
| Engine               | Allison 501-D22C Turboprop x 4 |
| Service Ceiling      | 25,000 ft (7,620 m)            |

The Aero Spacelines Super Guppy was released by Aero Spacelines in 1965. It was the Pregnant Guppy's successor, and a total of five aircraft were built .



# AERO VODOCHODY

Aero Vodochody was established in Czechoslovakia in 1919. It is known in the Czech Republic today as 'Aero', with 'Vodochody' the location of the company. Until the fall of Communism in Czechoslovakia in 1989, Aero Vodochody built many popular aircraft with long production runs and excellent service lives. Examples of the most successful pre-1989 models include the AE.10, L-29, L-39, L-59 and L-159. In the post-1989 years, the company suffered along with a number of Central European manufacturers as a sudden downward spiral hit jet trainer sales. Sales into NATO countries were difficult to achieve in the 1990s, and Aero Vodochody fell under the control of Boeing in 1998 and continued in that vein until 2004. In 2006, Penta Investments purchased Aero Vodochody, and today the company manufactures a number of components, including centre-wing boxes, cockpits, various door assemblies and other parts for Boeing, Airbus and others. Aero Vodochody has its own airport near Prague, and plans are underway to upgrade the facility to international standards.



|                      |                             |
|----------------------|-----------------------------|
| Plane                | Aero Ae.10                  |
| Year of Introduction | 1922                        |
| Type                 | Commercial Biplane Airliner |
| Engine               | 6-cyl Maybach Mb.IVa        |
| Service Ceiling      | 19,685 ft (6,000 m)         |

The very first Aero Ae.10 took to the skies in 1922 as the first aircraft for the Czechoslovak State Airlines. A total of five Ae.10s were in service between Prague and Bratislava until 1928.



|                      |                           |
|----------------------|---------------------------|
| Plane                | Aero L-39 Albatros        |
| Year of Introduction | 1972                      |
| Type                 | Jet Trainer               |
| Engine               | Ivchenko AI-25TL Turbofan |
| Service Ceiling      | 36,100 ft (11,000 m)      |

The L-39 Albatros was designed in the 1960s as the Aero L-29 Delfin's replacement. It was the first of Aero Vodochody's second generation of trainers, and also the first trainer equipped with the Turbofan engine.



|                      |                           |
|----------------------|---------------------------|
| Plane                | Aero L-39 Albatros        |
| Year of Introduction | 1972                      |
| Type                 | Jet Trainer               |
| Engine               | Ivchenko AI-25TL Turbofan |
| Service Ceiling      | 36,100 ft (11,000 m)      |

The L-39 Trainer is used in countless countries as a military trainer. The pictured model is an Estonian Air Force trainer.



|                      |                              |
|----------------------|------------------------------|
| Plane                | Aero L-29 Delfin             |
| Year of Introduction | 1961                         |
| Type                 | Military Jet Trainer         |
| Engine               | Motorlet M-701C 500 Turbojet |
| Service Ceiling      | 36,100 ft (11,000 m)         |

Aero Vodochody's L-29 Delfin became the official jet training aircraft for all Warsaw Pact nations during the 1960s. It was the first of the company's aircraft to be fully designed and built locally.



|                      |                                |
|----------------------|--------------------------------|
| Plane                | Aero L-159A                    |
| Year of Introduction | 1997                           |
| Type                 | Multi-Role Combat Aircraft     |
| Engine               | Honeywell F124-GA-100 Turbofan |
| Service Ceiling      | 43,300 ft (13,200 m)           |

The Aero L-159A is designed to carry out a number of different military tasks, including air-to-ground, air-to-air and reconnaissance work. It is currently in service with the Czech Republic's Air Force.



|                      |                            |
|----------------------|----------------------------|
| Plane                | Aero Ae.145                |
| Year of Introduction | 1951                       |
| Type                 | Civilian Utility Aircraft  |
| Engine               | 4-cyl Walter M 332-III x 2 |
| Service Ceiling      | 19,360 ft (5,900 m)        |

The twin-pistoned Ae.145 was the first of Czechoslovakia's post-World War II civilian aircraft produced. Nearly 600 aircraft were produced during its lifespan. The aircraft's design was the work of three designers, who began designing the model in 1946.



|                      |                                 |
|----------------------|---------------------------------|
| Plane                | Aero Ae.145 Super Aero (Ae.455) |
| Year of Introduction | 1951                            |
| Type                 | Civilian Utility Aircraft       |
| Engine               | 4-cyl Walter M 332-III x 2      |
| Service Ceiling      | 19,360 ft (5,900 m)             |

The '45' numbers in the Aero Ae.145 referred to the aircraft's capacity to carry 4 or 5 passengers. Both the Ae.145 and 1455 were manufactured by Let Kunovice.



|                      |                      |
|----------------------|----------------------|
| Plane                | Aero CS-102          |
| Year of Introduction | 1949                 |
| Type                 | Jet Trainer          |
| Engine               | Klimov VK-1 Turbojet |
| Service Ceiling      | 50,853 ft (15,500 m) |


The Aero CS-102 was also built as the MiG UTI 2626 in the late 1950s, and was equipped with a Klimov Turbojet engine. In 1959, the MiG model was armed with the RP-1 radar system.





# AICHI KOKUKI - AIR TRACTOR - AIRSPEED

Aichi Kokuki was established as a watch manufacturing company in Japan in 1898. Aircraft production began in 1920 with technical assistance from Germany's Heinkel, and the company soon began building seaplanes for the Imperial Japanese Navy using British technology. Between the wars, Aichi benefitted from secret assistance through Heinkel, which led to the successful production of numerous models used during World War II. Air Tractor Inc. is a current US based manufacturer of agricultural aircraft, and its first model took to the skies in 1973. The first turbine model for Air Tractor arrived four years later, and more than 2,000 Air Tractor models were produced by the first decade of the 21st century. Airspeed Ltd. was a British aircraft manufacturer established in 1931 by (later) celebrated novelist Neville Shute. Five years later, all Airspeed models were to be equipped with Wolseley radial engines as part of a deal with Lord Nuffield, but the deal fell through. In 1940, de Havilland purchased Airspeed but kept the entity separate. The company was busy building training aircraft during World War II, and officially merged with de Havilland in 1951.



|                      |   |
|----------------------|---|
| Plane                | Airspeed AS.10 Oxford                   |
| Year of Introduction | 1938                                    |
| Type                 | Twin-Engine Trainer                     |
| Engine               | Armstrong-Siddeley Cheetah X Radial x 2 |
| Service Ceiling      | 23,550 ft (7,180 m)                     |

The AS.10 Oxford was designed and built for use as a training aircraft for British Commonwealth forces. It was used during World War II to train aircrews in gunnery, bombing, navigation and radio operation. In its lifetime, nearly 9,000 units were produced.



|                      |                      |
|----------------------|----------------------|
| Plane                | Aichi D3A1           |
| Year of Introduction | 1940                 |
| Type                 | Military Dive Bomber |
| Engine               | Mitsubishi Kinsei 44 |
| Service Ceiling      | 30,500 ft (9,300 m)  |

The Japanese Aichi D3A1 was the first of two 3DA models built for service as a dive bomber during World War II. It served as the Imperial Japanese Navy's chief bomber and was used during the attack on Pearl Harbor in December, 1941.



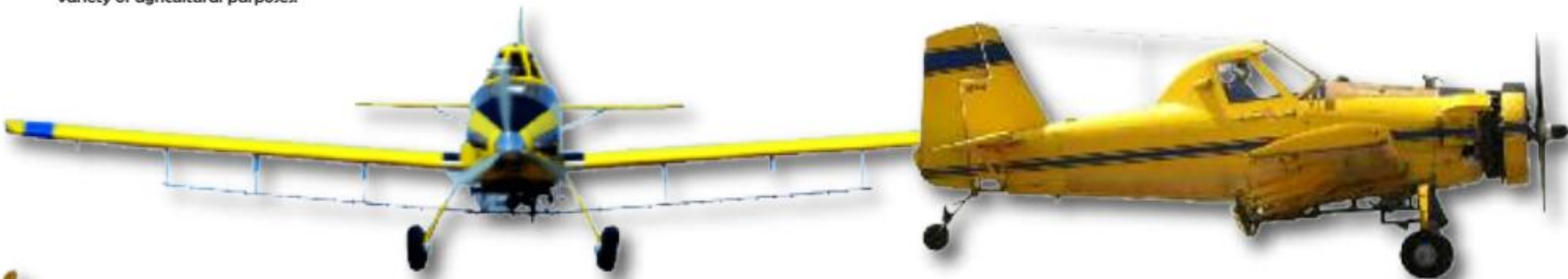
|                      |                                    |
|----------------------|------------------------------------|
| Plane                | Air Tractor AT-503                 |
| Year of Introduction | 1986                               |
| Type                 | Agricultural Aircraft              |
| Engine               | Pratt & Whitney PT6A-45R Turboprop |
| Service Ceiling      | 36,000 ft (10,975 m)               |

The AT-503 is one of Air Tractor's numerous models built to carry chemicals for a variety of agricultural purposes.



|                      |                                     |
|----------------------|-------------------------------------|
| Plane                | Air Tractor AT-802F                 |
| Year of Introduction | 1990                                |
| Type                 | Firefighting Aircraft               |
| Engine               | Pratt & Whitney PT6A-67AG Turboprop |
| Service Ceiling      | 25,000 ft (7,620 m)                 |

The 'F' model of the Air Tractor AT-802 was purpose-built for aerial firefighting. The model was equipped with the company's Computerised Firegate, which was developed by Trotter Controls Inc.



|                      |                                       |
|----------------------|---------------------------------------|
| Plane                | Air Tractor AT-502                    |
| Year of Introduction | 1989                                  |
| Type                 | Agricultural Aircraft                 |
| Engine               | Pratt & Whitney PT 6A-35 AG Turboprop |
| Service Ceiling      | Data Unavailable                      |

The Air Tractor brand is widely used and extremely popular in the broad expanses of the Australian farming landscape. The AT-502 is the most popular of the Air Tractor models, and its engine was upgraded from 680 hp to 750hp in its lifetime.

|                      |                               |
|----------------------|-------------------------------|
| Plane                | Air Tractor AT-400            |
| Year of Introduction | 1979                          |
| Type                 | Agricultural Aircraft         |
| Engine               | Pratt & Whitney R-1340 Radial |
| Service Ceiling      | Data Unavailable              |

The Air Tractor AT-400 was produced in a number of variants over its lifetime and included the AT-401 and AT-402 models. The AT-400 was equipped with a chemical hopper between the cockpit and the engine firewall.



|                      |                             |
|----------------------|-----------------------------|
| Plane                | Aichi D3A Type 99 (Replica) |
| Year of Introduction | 1940                        |
| Type                 | Military Dive Bomber        |
| Engine               | Mitsubishi Kinsei 44        |
| Service Ceiling      | 30,500 ft (9,300 m)         |

The Aichi D3A was known as the Val by the Allies during World War II. Later modifications saw the aircraft become a very manoeuvrable one with the addition of a fin-strake along the fuselage.

|                      |                                  |
|----------------------|----------------------------------|
| Plane                | Airspeed AS 57 Ambassador 2      |
| Year of Introduction | 1956                             |
| Type                 | Twin-Engine Airliner             |
| Engine               | Bristol Centaurus 661 Radial x 2 |
| Service Ceiling      | Data Unavailable                 |

The first prototype of the two-model AS 57 Ambassador line was flown in 1947. The aircraft became a passenger liner for British European Airways (BEA) in 1952. A total of 21 Ambassador 2 units were produced.



# AIRBUS

Airbus has manufacturing facilities in France, Spain, Germany, Great Britain, China and the USA. The company was established as an aerospace manufacturing consortium, bringing a number of aerospace and defence companies together under the umbrella of a joint-stock company. Among those companies were McDonnell Douglas, Boeing and Lockheed. The first aircraft to emanate from the new consortium was the Airbus A300, which began life in 1967. It was envisaged that different aspects of manufacture would take place in a number of countries, with the load spread between participants. Following a number of changes, the first A300 arrived in 1972 as the A300B2 production model, but its introduction was upstaged by that of Concorde. The Airbus A310 arrived in 1980, and the A320 in 1987, with orders for the latter totalling 400. Work next began on the Airbus A330 and A340 models. In the meantime, engineering work began on a proposed Airbus A380, which was aimed at the market that had been dominated for decades by Boeing. Codenamed the Airbus A3XX, five models were built for demonstration and testing, and the very first Airbus A380 was unveiled in 2005.

|                      |  |
|----------------------|--|
| Plane                | Airbus A300-600ST Super Transporter      |
| Year of Introduction | 1995                                     |
| Type                 | Wide Body Cargo Freight Aircraft         |
| Engine               | General Electric CF6-80C2A8 Turbofan x 2 |
| Service Ceiling      | 35,000 ft (10,668 m)                     |

Also known as the Beluga, the Airbus Super Transporter is a larger variant of the standard Airbus A300-600. An upgrade to the Beluga (named the Beluga XL) will be introduced in 2020.





|                      |                                 |
|----------------------|---------------------------------|
| Plane                | Airbus A319-114                 |
| Year of Introduction | 1996                            |
| Type                 | Narrow Body Jet Airliner        |
| Engine               | CFM International CFM56-5A5 x 2 |
| Service Ceiling      | 41,000 ft (12,500 m)            |

The A319-114 is part of the A320 line, capable of carrying up to 160 passenger. The model first entered service with the Swiss national airline, and nearly 1,500 units had been produced by late 2016.



|                      |                             |
|----------------------|-----------------------------|
| Plane                | Airbus A310-304             |
| Year of Introduction | 1986                        |
| Type                 | Wide Body Jet Airliner      |
| Engine               | General Electric CF6-80C2A2 |
| Service Ceiling      | 41,100 ft (12,530 m)        |

The Airbus A310-304 was part of the A310 line, which was the second release for the Airbus consortium. It was designed as a wide-bodied airliner capable of transporting up to 265 passengers.

|                      |                                      |
|----------------------|--------------------------------------|
| Plane                | Airbus A318-111                      |
| Year of Introduction | 2003                                 |
| Type                 | Narrow Body Jet Airliner             |
| Engine               | CFM International CFM56 Turbofan x 2 |
| Service Ceiling      | 41,000 ft (12,500 m)                 |

The A318 is the smallest model in the A320 range. It has a narrow body and is reasonably short in relation to its peers. Capable of carrying up to 132 passengers, it first entered service with the USA's Frontier Airlines.



|                      |                                 |
|----------------------|---------------------------------|
| Plane                | Airbus A320-200                 |
| Year of Introduction | 2007                            |
| Type                 | Narrow Body Jet Airliner        |
| Engine               | CFM International CFM56-5B3 x 2 |
| Service Ceiling      | 41,000 ft (12,500 m)            |

When the A320-200 model and its variants were released, changes included additional fuel capacity and wingtip fences, making them ideal for runways in less than perfect condition.



|                      |   |
|----------------------|---|
| Plane                | Airbus A380                             |
| Year of Introduction | 2005                                    |
| Type                 | Wide Body Double-Deck Airliner          |
| Engine               | Trent 970-84/970B-84 (2006 Release) x 4 |
| Service Ceiling      | 43,000 ft (13,100 m)                    |

The Airbus A380 is the largest passenger airliner in the world. Designed to compete with the dominant Boeing company, the airliner has the capacity to seat 525 people over three classes, or 853 people if the aircraft is configured to be an all-economy class.



|                      |                                 |
|----------------------|---------------------------------|
| Plane                | Airbus A320-211                 |
| Year of Introduction | 2007                            |
| Type                 | Narrow Body Jet Airliner        |
| Engine               | CFM International CFM56-5B3 x 2 |
| Service Ceiling      | 41,000 ft (12,500 m)            |

There are two variants of the A320, those being the 100 and 200 range, with the 211 fitting into the latter. The narrow body airliner can carry up to 150 passengers.

|                      |                          |
|----------------------|--------------------------|
| Plane                | Airbus A321-200          |
| Year of Introduction | 1994                     |
| Type                 | Narrow Body Jet Airliner |
| Engine               | IAE Model V2530-A5 x 2   |
| Service Ceiling      | 41,000 ft (12,500 m)     |

The Airbus A321-200 has a 236 passenger capacity and was designed as a stretched fuselage A320. The aircraft is widely used by the USA's American Airlines.



# ANEC - ALBATROS - ALPI AVIATION

ANEC was established when Blériot & SPAD Manufacturing was renamed and based in Surrey, England. The factory opened during World War I to make Avro and SPAD aircraft. Following the war, an airliner and several biplanes were produced by ANEC, the latter totalling eight aircraft over four models. Albatros Flugzeugwerke was renowned as a World War I German fighter aircraft manufacturer. Initially established in 1909 to produce the French Antoinette monoplane, the company grew to build more than 10,000 aircraft during World War I. Alpi Aviation is an aircraft manufacturer based in Italy. Alpi makes light aircraft in kit form, as well as complete ultralights. Today, Alpi is a manufacturer of rotary and fixed wing aircraft that are manned or unmanned. Notable models include the Alpi Pioneer, a kit aircraft, and aerobatic microlights. Additionally, Alpi build a turbine powered helicopter (the Syton AH 130), as well as the Alpi Sixton-A unmanned aerial vehicle.



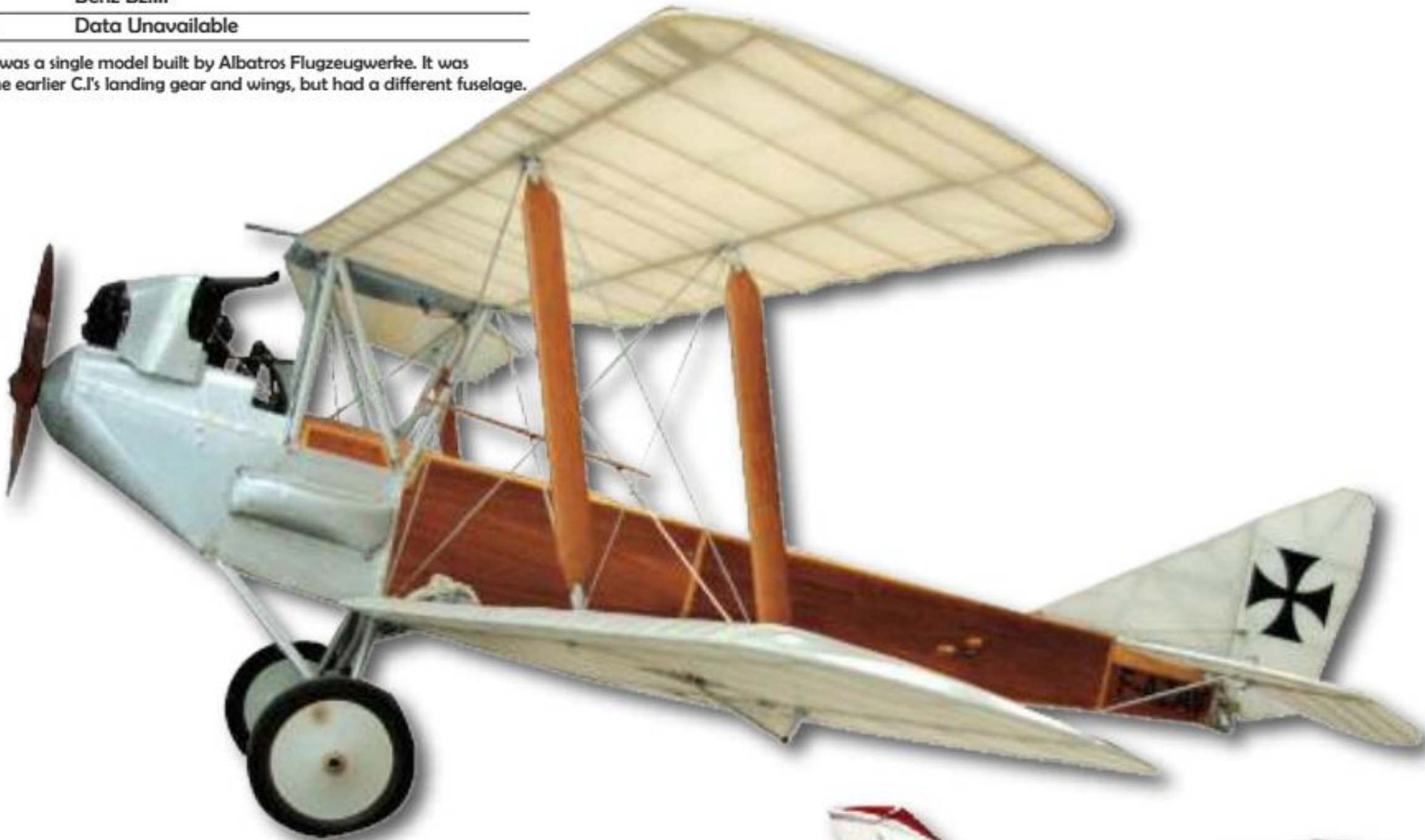
|                      |                    |
|----------------------|--------------------|
| Plane                | Albatros B.III     |
| Year of Introduction | 1914               |
| Type                 | Training Biplane   |
| Engine               | Mercedes D.II      |
| Service Ceiling      | 9,840 ft (3,000 m) |

The Albatros B.III was the training variant of the B.III reconnaissance biplane. It had a larger wingspan than the standard B.III model and was the last of the B.IIIs before the limited run Albatros B.IV was released.



|                      |                        |
|----------------------|------------------------|
| Plane                | Albatros C.II          |
| Year of Introduction | c. 1910                |
| Type                 | Reconnaissance Biplane |
| Engine               | Benz Bz.III            |
| Service Ceiling      | Data Unavailable       |

The Albatros C.II was a single model built by Albatros Flugzeugwerke. It was equipped with the earlier C.I's landing gear and wings, but had a different fuselage.



|                      |                                 |
|----------------------|---------------------------------|
| Plane                | Alpi Pioneer 200 Sparrow        |
| Year of Introduction | Current                         |
| Type                 | Ultralight/Light Sport Aircraft |
| Engine               | 4-cyl Rotax 912 ULS             |
| Service Ceiling      | Data Unavailable                |

The Pioneer 200 is a kit plane built by Alpi Aviation and designed to comply with rules for ultralight planes in the USA. It is of wooden construction and has a rectangular wingspan.

|                      |                                 |
|----------------------|---------------------------------|
| Plane                | Alpi Pioneer 330 Acro           |
| Year of Introduction | Current                         |
| Type                 | Ultralight/Light Sport Aircraft |
| Engine               | 4-cyl Rotax 912 ULS             |
| Service Ceiling      | Data Unavailable                |

The Alpi Pioneer 330 Acro is part of the Pioneer 300 line of light sport aircraft. Delivered to customers in kit form, the aircraft's frame is wooden with composite skin panels.



|                      |                                 |
|----------------------|---------------------------------|
| Plane                | Alpi Aviation Pioneer 400       |
| Year of Introduction | Current                         |
| Type                 | Ultralight/Light Sport Aircraft |
| Engine               | 4-cyl Rotax 912 ULS             |
| Service Ceiling      | 19,685 ft (6,000 m)             |

The Pioneer 400 is one of a kit ultralight range that also includes the 200 and 300 variants. The low wing Pioneer 400 is the largest of the range and seats four people.



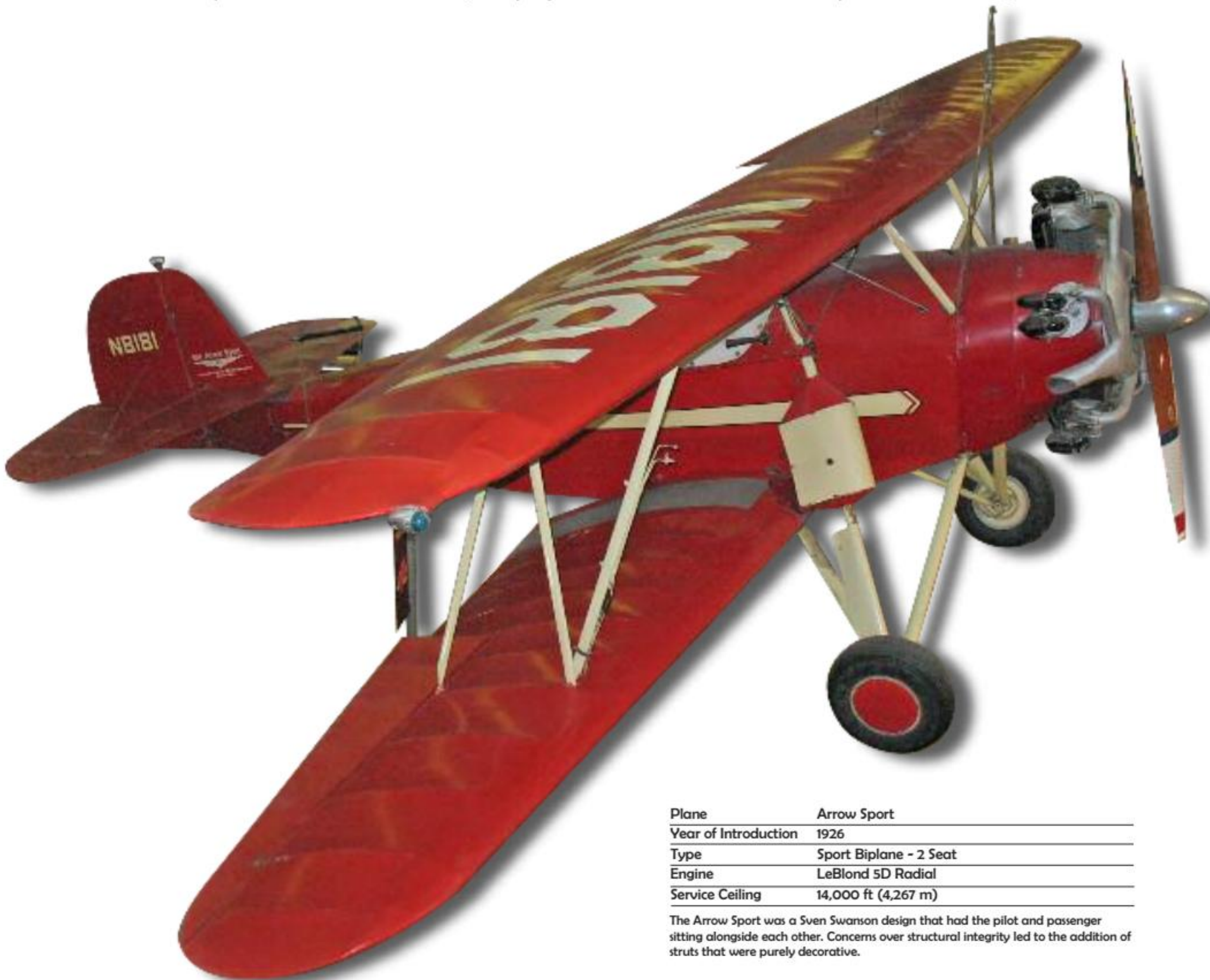
|                      |                     |
|----------------------|---------------------|
| Plane                | Albatros D.Va       |
| Year of Introduction | 1917                |
| Type                 | Fighter Monoplane   |
| Engine               | Mercedes D.IIIaü    |
| Service Ceiling      | 18,701 ft (5,700 m) |

The Albatros D.Va was an upgraded Albatros D.V and remained in service until the arrival of the structurally stronger Fokker D.VII. From early 1918, the D.Va was deployed on the Western Front.



# ALENIA - ALPHA - ANATRA - ARROW

Alenia Aeronautica was a large aerospace company, with Aermacchi and Aeronavali among its subsidiaries. In 1990, the entity was renamed Alenia Aermacchi and became associated with the Eurofighter program. In 2002, the company then became Alenia Aeronautica and began building the C-27J for the US military. Alpha Aviation is based in New Zealand and manufactures light aircraft. In 2009, the company was sold to IXL Limited in Hong Kong. Anatra was established in the Ukraine in 1913 as a naval workshop and began manufacturing reconnaissance aircraft for the Russian Army. Models included Farman, Nieuport, Morane and Voisin aircraft, and later included the company's own designs. The output later numbered fighters and bombers in its complement, and one of the most significant of those was the three-engined Anatra DE bomber prototype of 1916. The aircraft bristled with personnel and armaments, and was equipped with two gun turrets and a dangerously heavy bomb payload. The Anatra DE prototype never made it into production. The Arrow Aircraft & Motor Corporation was established in 1925 in the USA and built light sport aircraft. It acquired the Patriot Manufacturing Company in 1928 but fell foul of the Great Depression before folding.



|                      |                        |
|----------------------|------------------------|
| Plane                | Arrow Sport            |
| Year of Introduction | 1926                   |
| Type                 | Sport Biplane - 2 Seat |
| Engine               | LeBlond 5D Radial      |
| Service Ceiling      | 14,000 ft (4,267 m)    |

The Arrow Sport was a Sven Swanson design that had the pilot and passenger sitting alongside each other. Concerns over structural integrity led to the addition of struts that were purely decorative.



|                      |   |
|----------------------|---|
| Plane                | Alenia G.222                              |
| Year of Introduction | 1978                                      |
| Type                 | Military Transport                        |
| Engine               | General Electric T64-GE-P4D Turboprop x 2 |
| Service Ceiling      | 25,000 ft (7,620 m)                       |

The Alenia G.222 was originally the Fiat Aviazione G.22 and later became the Aeritalia G.222. It was designed in answer to a NATO specification and was later developed into the C-27J Spartan.



|                      |                                  |
|----------------------|----------------------------------|
| Plane                | Anatra Anasal                    |
| Year of Introduction | 1916                             |
| Type                 | Reconnaissance Aircraft - 2 Seat |
| Engine               | Salmson 9U Radial                |
| Service Ceiling      | 14,100 ft (4,300 m)              |

The Anatra Anasal was also known as the Anatra DS. Built in Russia during World War I, it was also used during the Russian Civil War. The 'Anasal' name was a derivative of Anatra Salmson.



|                      |                               |
|----------------------|-------------------------------|
| Plane                | R 2160 Alpha Sport            |
| Year of Introduction | 1976                          |
| Type                 | Two-Seat Aircraft             |
| Engine               | 4-cyl Avco Lycoming O-320-D2A |
| Service Ceiling      | 12,500 ft (3,800 m)           |

The Alpha Robin R 2160 is part of the Alpha 2000 range of aircraft. It was originally known as the Acrobin and was a quieter aircraft than the Alpha 2000.



|                      |                               |
|----------------------|-------------------------------|
| Plane                | Alpha Robin R 2100A           |
| Year of Introduction | 1976                          |
| Type                 | Two-Seat Aircraft             |
| Engine               | 4-cyl Avco Lycoming O-320-D2A |
| Service Ceiling      | 12,500 ft (3,800 m)           |

The Robin R 2100A was a limited edition aircraft produced as part of the Alpha 2000 aircraft range. Only 34 models were built.

|                      |                                      |
|----------------------|--------------------------------------|
| Plane                | Alenia C-27J Spartan                 |
| Year of Introduction | 2006                                 |
| Type                 | Military Transport                   |
| Engine               | Rolls-Royce AE2100-D2A Turboprop x 2 |
| Service Ceiling      | 30,000 ft (9,144 m)                  |

The C-27J Spartan was originally developed during the Alenia Aermacchi days and was inspired by the G.222. The model has also been produced for the US military under license to L-3 Communications.

|                      |                                  |
|----------------------|----------------------------------|
| Plane                | Anatra DS                        |
| Year of Introduction | 1916                             |
| Type                 | Reconnaissance Aircraft - 2 Seat |
| Engine               | Salmson 9U Radial                |
| Service Ceiling      | 14,100 ft (4,300 m)              |

The Anatra DS was also called the Anatra Anasol. Produced in the Odessa region, the area was occupied by Austro-Hungary and the aircraft were used by Austria throughout World War I.





# ANTONOV

Antonov's origins began in 1946 as part of a top secret Soviet R&D program. In charge was Oleg Antonov, who produced military transport aircraft. One of the most significant aircraft designed by Antonov was the An-2 biplane, which remains in operation today. In 1952, Antonov was moved to Kiev to continue his work, which resulted in the release of the An-10 and An-12 turboprop aircraft in 1957, and extensive use of the models ensued during the Vietnam War and the later Soviet War in Afghanistan. In 1965, the military transport An-22 arrived as the USSR's first wide bodied aircraft and the world's largest aircraft powered by a turboprop engine. By the 1970s, Antonov was the country's main military aircraft designer, and when Oleg Antonov died in 1984, he was honoured by continuation of his name in later aircraft produced. The massive An-124 arrived in the late 1980s and was joined by the An-225 'Mriya'. The latter remains the world's heaviest and largest aircraft and was designed to move spacecraft. Following the collapse of Communism in Russia, Antonov became a commercial entity and has since expanded its reach into the wider world.



|                      |                                       |
|----------------------|---------------------------------------|
| Plane                | Antonov An-2                          |
| Year of Introduction | 1947                                  |
| Type                 | Utility/Agricultural Biplane - 2 Seat |
| Engine               | 9-cyl Shvetsov ASh-62IR               |
| Service Ceiling      | 14,750 ft (4,500 m)                   |

First designed by Oleg Antonov in 1946, the Antonov An-2 has been extensively manufactured ever since. During the Soviet era in Russia, it was used as a short range airliner.



|                      |                                       |
|----------------------|---------------------------------------|
| Plane                | Antonov An-2                          |
| Year of Introduction | 1947                                  |
| Type                 | Utility/Agricultural Biplane - 2 Seat |
| Engine               | 9-cyl Shvetsov ASh-62IR               |
| Service Ceiling      | 14,750 ft (4,500 m)                   |

The An-2 had a pneumatic braking system for stopping on short runways. Its uncomplicated mechanics and ability to land on unsurfaced airstrips made it immensely successful.



|                      |                                |
|----------------------|--------------------------------|
| Plane                | Antonov AN-26                  |
| Year of Introduction | 1969                           |
| Type                 | Military & Civilian Transport  |
| Engine               | Progress AI-24VT Turboprop x 2 |
| Service Ceiling      | 24,600 ft (7,500 m)            |

The Antonov An-26 was produced between 1969 and 1985 in the former Soviet Union. It was further manufactured in China as the Xian Y-14 and later became part of the Xi'an Aircraft Factory's Xian X7 series.

|                      |                                   |
|----------------------|-----------------------------------|
| Plane                | Antonov An-178                    |
| Year of Introduction | 2015                              |
| Type                 | Military Transport                |
| Engine               | Progress D-436-148FM Turbofan x 2 |
| Service Ceiling      | 42,651 ft (13,000 m)              |

The Antonov An-178 is a product of the now Ukrainian Antonov company. It features advanced avionics and competes with the C-27J Spartan and the Lockheed Martin C-130J among others.



|                      |                                 |
|----------------------|---------------------------------|
| Plane                | Antonov 225 Mriya               |
| Year of Introduction | 1988                            |
| Type                 | Airlift Cargo Aircraft          |
| Engine               | ZMKB Progress D-18 Turbofan x 6 |
| Service Ceiling      | 36,089 ft (11,000 m)            |

Specifically developed to transport the Buran Spaceplane, the Antonov An-225 'Mriya' is the world's heaviest and longest aircraft. Only one model of the original 1988 release was built.



|                      |                            |
|----------------------|----------------------------|
| Plane                | Antonov An-72              |
| Year of Introduction | 1977                       |
| Type                 | Transport Aircraft         |
| Engine               | Lotarev D-36 Series AA x 2 |
| Service Ceiling      | Data Unavailable           |

The Antonov An-72 is nicknamed the 'Cheburashka', as it resembles the big-eared children's animated character when looked at front-on. The An-72 is used for a number of transport and maritime patrol roles.



|                      |                             |
|----------------------|-----------------------------|
| Plane                | Antonov An-124 Ruslan       |
| Year of Introduction | 1986                        |
| Type                 | Airlift Jet Aircraft        |
| Engine               | Progress D-18T Turbofan x 4 |
| Service Ceiling      | 39,370 ft (12,000 m)        |

Known by the NATO identification code as 'Condor', the An-124 Ruslan spent 30 years as the world's heaviest production cargo aircraft. Today, it is still the world's largest military air transport vehicle.

|                      |                             |
|----------------------|-----------------------------|
| Plane                | Antonov An-12               |
| Year of Introduction | 1959                        |
| Type                 | Military Transport Aircraft |
| Engine               | Ivchenko AI-20L x 4         |
| Service Ceiling      | 33,500 ft (10,200 m)        |

The An-12 was designed during the Soviet era and is the military transport version of the Antonov An-10. Similar to the Lockheed C-130 Hercules, it was originally equipped with a tail gun turret.



# ASSO AEREI - ATEC V.O.S. - AVIABELLANCA

Asso Aeri Srl is based in Italy as a light and ultralight aircraft designer. All Asso Aeri aircraft are of wooden construction, and the majority of models have a tricycle-configured landing gear arrangement. The first Asso aircraft flew in 1980. Ateco v.o.s. is based in the Czech Republic and began life as a parts manufacturer in 1992 before moving into ultralight kits and later complete light aircraft models. Models include the 122 Zephyr 2000, the 321 Faeta and the 212 Solo. AviaBellanca was established in 1927 as the Bellanca Aircraft Corporation of America. Founder, Guiseppe Mario Bellanca moved to the USA in 1911 and established himself as an aircraft designer for the Wright Aeronautical Corporation and others. Bellanca eventually established his own US based aircraft company in 1927 - the Bellanca Aircraft Corporation of America. When Charles Lindbergh set off for his New York-Paris flight, his first choice was the Bellanca WB-2, but the flight was eventually undertaken in a Ryan after Bellanca remained unswerving about how the aircraft was to be operated. In 1954, the company was sold to L. Albert and Sons.



|                      |                                      |
|----------------------|--------------------------------------|
| Plane                | Bellanca 8KCAB Decathlon             |
| Year of Introduction | 1970                                 |
| Type                 | Light Aerobatic and Trainer Aircraft |
| Engine               | 4-cyl Lycoming AEIO-360-H1B          |
| Service Ceiling      | 15,800 ft (4,816 m)                  |

The Decathlon was designed for pilots requiring manoeuvrability beyond the capabilities of the Citabria series.



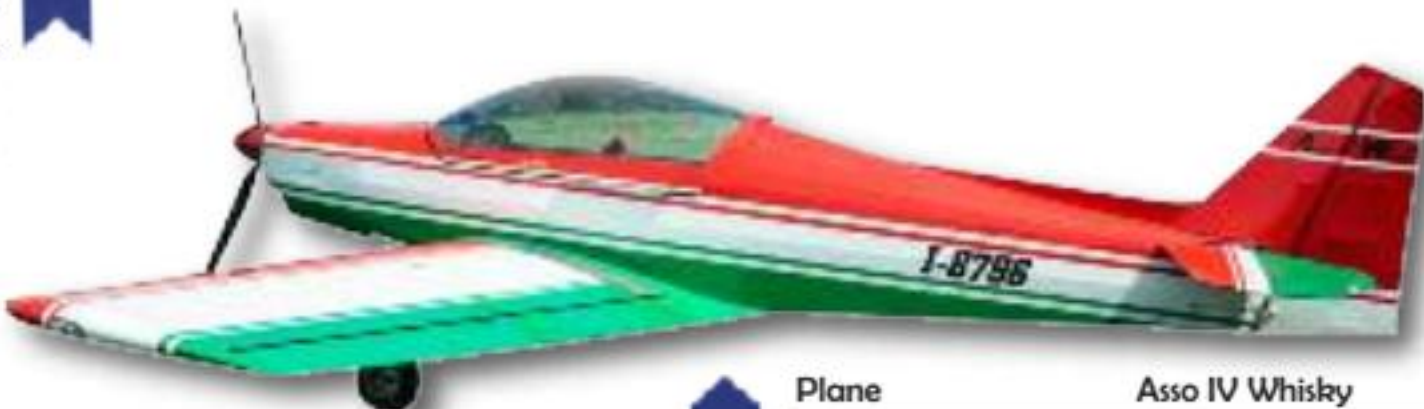
|                      |                           |
|----------------------|---------------------------|
| Plane                | Asso V                    |
| Year of Introduction | 1996                      |
| Type                 | Ultralight - 2 Seat       |
| Engine               | Rotax 912 S/ULS or 912/UL |
| Service Ceiling      | Data Unavailable          |

The wood constructed Asso V was designed in the early 1990s to meet changed Italian Civil Aviation Authority requirements. Some of the aircraft's connecting parts were made of aluminium and steel.



|                      |                        |
|----------------------|------------------------|
| Plane                | Asso Vidor Champion V  |
| Year of Introduction | 1995                   |
| Type                 | Homebuilt Aircraft     |
| Engine               | 4-cyl Volkswagen 75 hp |
| Service Ceiling      | Data Unavailable       |

The Vidor Champion V was designed by Asso's Guiseppe Vidor. It is sold to customers in the form of plans and is also known to enthusiasts as the Asso Aeri V Champion.



|                      |  |
|----------------------|--|
| Plane                | ATEC 321 Faeta                             |
| Year of Introduction | 2003                                       |
| Type                 | Light & Ultralight Sport Aircraft - 2 Seat |
| Engine               | Rotax 912 / ULS                            |
| Service Ceiling      | Data Unavailable                           |

The Czech Republic's ATEC 321 Faeta is a development of the company's 122 Zephyr 2000. It is provided in complete form and features fixed landing gear.



|                      |                                 |
|----------------------|---------------------------------|
| Plane                | Bellanca Citabria 115           |
| Year of Introduction | 1945                            |
| Type                 | Light Trainer Aircraft - 2 Seat |
| Engine               | Continental A65-8               |
| Service Ceiling      | 12,500 ft (3,810 m)             |

Known colloquially as the 'Airknocker' or 'Champ', the Bellance Citabria 115 became one of the world's most popular light aircraft. It was initially designed to compete with the Piper Cub.

|                      |                              |
|----------------------|------------------------------|
| Plane                | Asso IV Whisky               |
| Year of Introduction | After 1980                   |
| Type                 | Ultralight Aircraft - 2 Seat |
| Engine               | 4-cyl Volkswagen 80 hp       |
| Service Ceiling      | Data Unavailable             |

The Asso IV Whisky is a two-seat tandem ultralight aircraft available in kits form or as plans from which a home builder works. It is available with retractable or fixed landing gear.

|                      |                               |
|----------------------|-------------------------------|
| Plane                | Bellanca 14-19-2 Cruisemaster |
| Year of Introduction | 1957                          |
| Type                 | Light Aircraft                |
| Engine               | Continental O-470K            |
| Service Ceiling      | 16,000 ft (4,900 m)           |

The Bellanca 14-19-2 was developed by Northern Aircraft (USA) as part of the Bellanca 14-13 Crusair Senior series. It was further developed as the 1962 Viking series.





# AUSTER

Auster Aircraft Limited was established in Great Britain in 1938 as Taylorcraft Aeroplanes (England). During World War II, the company was housed in several locations, with design, wing manufacture, metalwork, final assembly and testing separated to maintain security. In 1946, the company was renamed to become Auster, and production moved to an aerodrome in Leicestershire. Early Taylorcraft designs continued as the basis for new models, with the backbone of the company's product emanating from a sprung tailwheel below the aircraft's fin. The only Auster aircraft not to receive the tailwheel was the Auster Agricola, which was an aerial farm aircraft. In 1961, Auster merged with Beagle Aircraft, and the high-winged Terrier and Airedale models arrived soon after. A number of Auster models were released for extensive use in Great Britain and its Commonwealth countries after the end of World War II. Uses included that of mail delivery, joy rides, private use and VIP transportation among others. The Auster name was discontinued after 1968.



|                      |                       |
|----------------------|-----------------------|
| Plane                | Auster Beagle Bulldog |
| Year of Introduction | 1969                  |
| Type                 | Light Aircraft        |
| Engine               | Lycoming IO-360-A1B6  |
| Service Ceiling      | 16,000 ft (4,875 m)   |

The term Beagle was an acronym of British Executive & General Aviation Ltd. The Beagle Bulldog was produced as a prototype in 1969 by Beagle-Auster Limited.



|                      |                                |
|----------------------|--------------------------------|
| Plane                | Auster IV                      |
| Year of Introduction | 1942                           |
| Type                 | Observation & Liaison Aircraft |
| Engine               | 4-cyl Lycoming O-290-3         |
| Service Ceiling      | Data Unavailable               |

The Auster IV was a development of the Auster III, equipped with the earlier Lycoming engine rather than the Auster III's de Havilland Gipsy IIIA.



|                      |   |
|----------------------|---|
| Plane                | Auster III                                  |
| Year of Introduction | 1942  |
| Type                 | Observation & Liaison Aircraft              |
| Engine               | 4-cyl de Havilland Gipsy Major (Gipsy IIIA) |
| Service Ceiling      | Data Unavailable                            |

The Auster III was an updated version of the Auster I, with the original Lycoming O-290-3 engine replaced with the de Havilland Gipsy IIIA.



|                      |                            |
|----------------------|----------------------------|
| Plane                | Auster J/5 Adventurer      |
| Year of Introduction | 1948                       |
| Type                 | Light Monoplane - 3 Seat   |
| Engine               | De Havilland Gipsy Major I |
| Service Ceiling      | Data Unavailable           |

The Auster J/5 Adventurer was a development of the earlier J/1 Autocrat model. It had a higher power output and was designed to work in Australia and New Zealand's hotter summers.



|                      |                                |
|----------------------|--------------------------------|
| Plane                | Beagle A.61 Terrier            |
| Year of Introduction | 1958                           |
| Type                 | Single Engine Monoplane        |
| Engine               | 4-cyl de Havilland Gipsy Major |
| Service Ceiling      | Data Unavailable               |

The A.61 Terrier was developed out of surplus British Army Austers that were modified and fitted with a de Havilland Gipsy engine. Later developments saw the 6A Tugmaster and the luxury three-seat 6B developed.



|                      |                               |
|----------------------|-------------------------------|
| Plane                | Auster AOP.11 Beagle          |
| Year of Introduction | 1961                          |
| Type                 | Military Observation Aircraft |
| Engine               | 6-cyl Continental IO-470-D    |
| Service Ceiling      | 18,500 ft (5,640 m)           |

The Auster AOP.111 was a development of the Auster AOP.9, but with a more powerful engine. Aside from the aircraft's engine, the AOP.111 was identical to its predecessor.



|                      |                            |
|----------------------|----------------------------|
| Plane                | Auster J/1 Autocrat        |
| Year of Introduction | 1945                       |
| Type                 | Touring Monoplane - 3 Seat |
| Engine               | Blackburn Cirrus Minor 2   |
| Service Ceiling      | 14,000 ft (4,300 m)        |

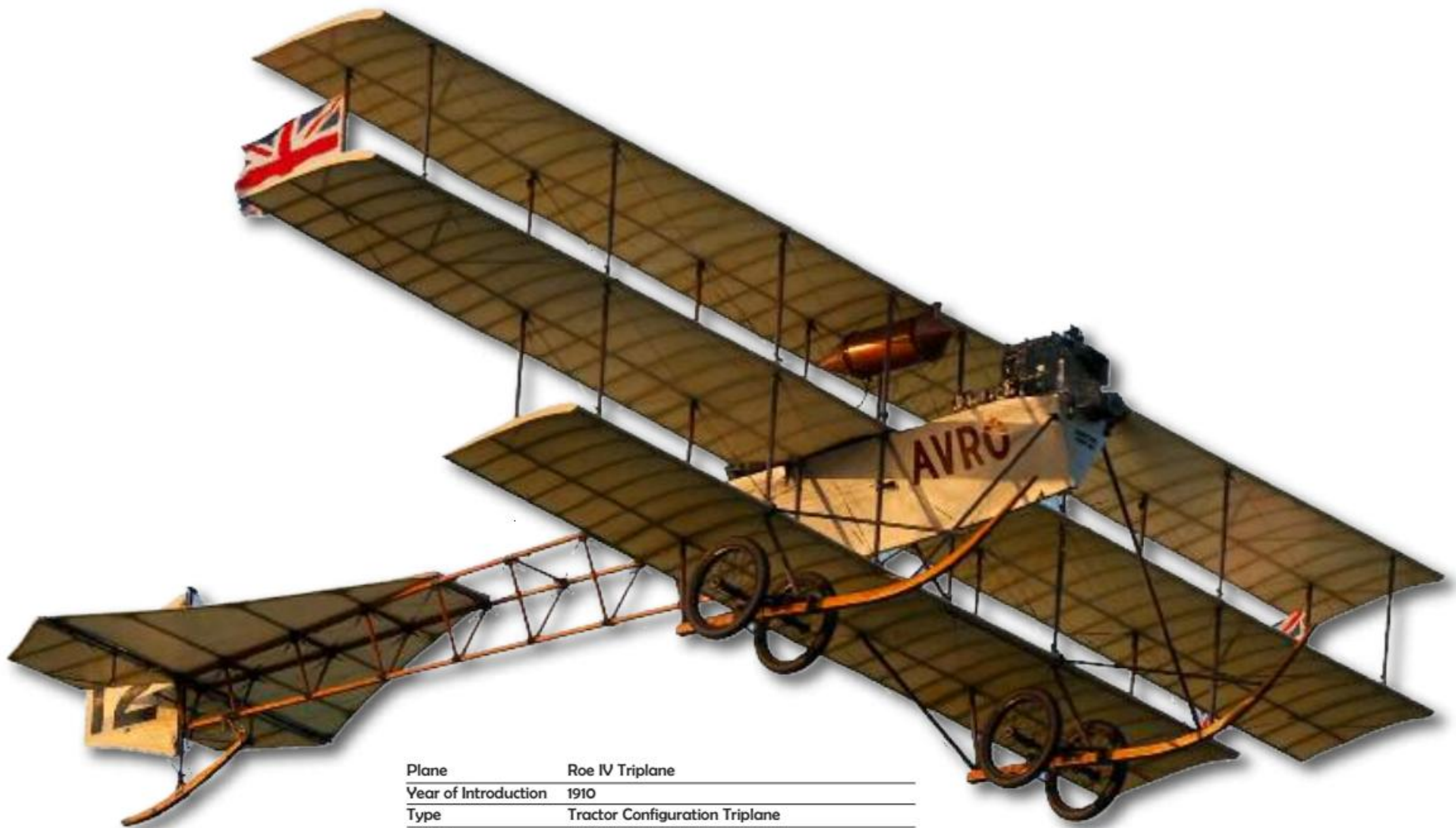
The Auster J/1 Autocrat was an upgrade of the Taylorcraft Model J AOP.V, which had been a wartime observation aircraft. Although it was developed as a Taylorcraft design, the model was released as an Auster, as the company changed its name.





# AVRO

Avro was established in Great Britain in 1910, and later began producing training aircraft for World War I in the form of the Avro 504. The product name was a derivation of the original company name - A. V. Roe and Company. Roe's first successful aircraft had been the Roe I Triplane, which was colloquially known as the Bullseye. In 1912, the Avro E was developed for the Royal Flying Corps, alongside advanced aircraft that included provision for enclosed the crew. Prototypes for the Avro Types F and G were also developed but never went into production. The Avro 504 arrived in 1913 and was used as a training aircraft until 1933. Financial problems in the inter-war years saw a large percentage of the company acquired by Crossley Motors, who in turn sold to Armstrong Siddeley in 1928. By 1935, Avro was a Hawker Siddeley subsidiary. World War II saw a number of extremely successful Avro models built, including the Lancaster, Manchester and Lincoln, with the Lancaster used in the Dam Busters raid. Maritime reconnaissance aircraft ensued as the Shackleton and Lancastrian models in the post-war years, and Avro Yorks and Tutors were involved in the Berlin Airlift. The Vulcan bomber was then developed during the Cold War. British Aerospace later resurrected the Avro name to build regional jet airliners originally known as the BAe 146 line.



|                      |                                |
|----------------------|--------------------------------|
| Plane                | Roe IV Triplane                |
| Year of Introduction | 1910                           |
| Type                 | Tractor Configuration Triplane |
| Engine               | 4-cyl 35 hp Green              |
| Service Ceiling      | Data Unavailable               |

The Roe IV Triplane was a development of the earlier Roe III Triplane. The aircraft's lower wing was of a smaller span than the two above it.



|                      |  |
|----------------------|--|
| Plane                | Avro 504K                                  |
| Year of Introduction | After 1913                                 |
| Type                 | Two Seat Trainer                           |
| Engine               | Gnome Monosoupape, Clerget 9 or Le Rhône 9 |
| Service Ceiling      | Data Unavailable                           |

The Avro 504K was a development of the popular Avro 504 trainer. A number of 504Ks were built as single seat fighters used in anti-Zeppelin duties during World War I.



|                      |  |
|----------------------|--|
| Plane                | Avro Model 621 Tutor                       |
| Year of Introduction | 1929                                       |
| Type                 | Inter-War Training Biplane                 |
| Engine               | Armstrong Siddeley Lynx IVC (Later Models) |
| Service Ceiling      | 16,000 ft (4,877 m)                        |

The two-seat Model 621 Tutor (not to be confused with the Avro Tutor) was a strongly built trainer used during the period between the two World Wars. Later models used the Armstrong Siddeley Lynx engine.



|                      |  |
|----------------------|--|
| Plane                | Avro Anson                                     |
| Year of Introduction | 1936   |
| Type                 | Military Transport                             |
| Engine               | 7-cyl Armstrong Siddeley Cheetah XV Radial x 2 |
| Service Ceiling      | 19,000 ft (5,790 m)                            |

The twin-engined Avro Anson was the military version of the Avro Nineteen. It was in service with the British and Canadian Air Forces among others, and was a development of the Avro 652 airliner.



|                      |  |
|----------------------|--|
| Plane                | Avro Nineteen (Avro Anson)                     |
| Year of Introduction | 1936   |
| Type                 | Civilian Transport                             |
| Engine               | 7-cyl Armstrong Siddeley Cheetah XV Radial x 2 |
| Service Ceiling      | 19,000 ft (5,790 m)                            |

The Avro Nineteen was also known as the Avro 652A Type XIX. There were 56 aircraft built for civilian transport use. The military version was known as the Avro Anson.

|                      |  |
|----------------------|--|
| Plane                | Avro B.2 Vulcan                        |
| Year of Introduction | 1956                                   |
| Type                 | Strategic Bomber                       |
| Engine               | Bristol-Siddeley Olympus 201 & 301 x 4 |
| Service Ceiling      | 56,000 ft (17,000 m)                   |

The B.2 Vulcan was released in 1956 as part of the V-Force bombers designed as nuclear capable military aircraft. Vulcans were armed with Avro Blue Steel nuclear missiles and had in-flight refuelling capabilities.



|                      |                           |
|----------------------|---------------------------|
| Plane                | ACAZ C.2                  |
| Year of Introduction | 1926                      |
| Type                 | Prototype Fighter Biplane |
| Engine               | Hispano-Suiza 12Ha V-12   |
| Service Ceiling      | Unknown                   |

The ACAZ C.2 was a prototype constructed from duralumin. It took off for a 1928 expedition to the Belgian Congo, but never made it out of Belgium.

|                      |                             |
|----------------------|-----------------------------|
| Plane                | Avro Lancaster PA 474       |
| Year of Introduction | 1945                        |
| Type                 | Heavy Bomber                |
| Engine               | V-12 Rolls-Royce Merlin x 4 |
| Service Ceiling      | 21,400 ft (6,500 m)         |

The Lancaster PA 474 was originally designed to become part of the Far East British Tiger Force, but it was no longer required when the war ended. One of the two remaining operational models belongs to the RAF Battle of Britain Memorial Flight today.



# BAe SYSTEMS

BAe Systems is a British based multinational aerospace defence and security company. Established in 1999, the company was formed when British Aerospace and Marconi Electronic Systems (a subsidiary of the General Electric Company) merged. Within that merger also lay the provenance of former manufacturers such as A.V. Roe, BAC, de Havilland, Supermarine, Vickers and others. In three decades, BAe has produced numerous notable military and civilian aircraft, including the BAe Systems Harrier and the Hawk, Avro, Nimrod and Jetstream series. Today, BAe's core business lies in completing major defence contracts and projects, which currently include the Eurofighter Typhoon and the Lockheed Martin F-35 Lightning II. The company additionally undertakes many defence shipbuilding contracts, including the new 'Queen Elizabeth' Class aircraft carriers for Great Britain, and 'Astute' Class submarine construction. Since its formation in 1999, BAe has grown to absorb other major defence companies such as Armor Holdings and United Defense in the USA. Initially, the company held shares in Atlas Elektronik, Astrium, AMS and Airbus, which they have now sold.



|                      |  |
|----------------------|--|
| Plane                | BAe Systems Harrier GR9                  |
| Year of Introduction | Post 1989                                |
| Type                 | V/STOL Jet (Military)                    |
| Engine               | Rolls-Royce Pegasus Mk. 105 Turbofan x 2 |
| Service Ceiling      | 50,000 ft (15,170 m)                     |

The BAe Systems Harrier GR9 was designed as an upgrade of the existing Harrier GR7. The upgrade included newly designed avionics, as well as a weapons facelift.



|                      |                           |
|----------------------|---------------------------|
| Plane                | ACAZ C.2                  |
| Year of Introduction | 1926                      |
| Type                 | Prototype Fighter Biplane |
| Engine               | Hispano-Suiza 12Ha V-12   |
| Service Ceiling      | Unknown                   |

The ACAZ C.2 was a prototype constructed from duralumin. It took off for a 1928 expedition to the Belgian Congo, but never made it out of Belgium.



|                      |  |
|----------------------|--|
| Plane                | BAe Systems Harrier T.12                 |
| Year of Introduction | Post 1989                                |
| Type                 | V/STOL Jet (Military)                    |
| Engine               | Rolls-Royce Pegasus Mk. 105 Turbofan x 2 |
| Service Ceiling      | 50,000 ft (15,170 m)                     |

A total of nine Harrier T.10s were modified with JUMP updates to become the Harrier T.12. The vertical take-off aircraft was powered by the Rolls-Royce Pegasus 105 engine, but was less powerful than the Harrier T.10.



|                      |                                    |
|----------------------|------------------------------------|
| Plane                | BAe Systems Hawk T1A               |
| Year of Introduction | 1976                               |
| Type                 | Advanced Military Jet Trainer      |
| Engine               | Rolls-Royce Adour Mk. 951 Turbofan |
| Service Ceiling      | 44,500 ft (13,565 m)               |

The Hawk T1A was designed as a modified Hawk T1, capable of carrying two under-wing Sidewinder missiles, as well as a central Aden gun. The model is also used by the RAF's famous Red Arrows display team.



|                      |                                 |
|----------------------|---------------------------------|
| Plane                | Nimrod R1                       |
| Year of Introduction | 1969                            |
| Type                 | Maritime Surveillance Aircraft  |
| Engine               | Rolls-Royce Spey Turbofan - x 4 |
| Service Ceiling      | 44,000 ft (13,411 m)            |

Developed as a Hawker Siddeley model, the Nimrod R1 took over the role of both Comets and Canberras in a maritime patrol capacity. The aircraft required four flight crew and 25 signals crew.



|                      |                                      |
|----------------------|--------------------------------------|
| Plane                | British Aerospace/BAe EAP            |
| Year of Introduction | 1986                                 |
| Type                 | Experimental Aircraft                |
| Engine               | Turbo-Union RB-199-104D Turbofan x 2 |
| Service Ceiling      | 60,000 ft (18,000 m)                 |

The British Aerospace EAP was designed and built to demonstrate technology at the time, and became the inspiration for what would eventually become the Eurofighter Typhoon. EAP is an acronym for Experimental Aircraft Program.



# BEECHCRAFT

The USA's Beechcraft Corporation designs and manufactures a wide array of civilian and military aircraft, specialising mainly in light single and twin-engined transports, as well as military trainers. Beechcraft's existence is of a complex nature, having previously been a Raytheon division, and later a subsequent Hawker Beechcraft brand. The company was founded by Walter and Olive Beech in 1932, taking over a non-operational Cessna factory. The very first Beechcraft model developed was the Beechcraft Model 17 Staggerwing, and its success saw more than 750 built, with nearly 300 produced for the USAF alone. Following wartime production for the military, the Beechcraft Bonanza followed next and set the record for the longest production run of any aircraft. The V-Tail Bonanza is still produced today. Beechcraft King Air, Super Air and Baron models followed through the 1960s, and the company again became a division of Raytheon in the 1980s after the death of Walter Beech. In 1994, the Beechcraft and Hawker lines were merged by Raytheon after Hawker was acquired from British Aerospace. The Beechcraft name was resurrected in 2002, before it was sold to Goldman Sachs 2006 and declared bankrupt later in 2012. The Beechcraft Corporation was established as a new entity in 2013.



|                      |                                      |
|----------------------|--------------------------------------|
| Plane                | Beechcraft King Air Avenger T1       |
| Year of Introduction | 2011                                 |
| Type                 | Observer Training Aircraft (RN)      |
| Engine               | Pratt & Whitney Canada Turboprop x 2 |
| Service Ceiling      | 35,000 ft (10,700 m)                 |

The Avenger T1 replaced the Royal Navy's (and other military services) Jetstream models in 2011. In Britain, the model is used for the training of maritime observers.



|                      |  |
|----------------------|--|
| Plane                | Beechcraft King Air C90B                       |
| Year of Introduction | 1993   |
| Type                 | Medium Twin-Turboprop Aircraft                 |
| Engine               | Pratt & Whitney Canada PT6A-135A Turboprop x 2 |
| Service Ceiling      | 30,000ft (9,144 m)                             |

The Model C90B is one of several '90' King Air aircraft released by Beechcraft. The King Air prefix was applied to the 90 and 100 series, while Super King Air applied to the 200 and 300 lines. Eventually, the 'Super' was dropped from the name.



|                      |  |
|----------------------|--|
| Plane                | Beechcraft Model 200C                        |
| Year of Introduction | 1979   |
| Type                 | Medium Twin-Turboprop Aircraft               |
| Engine               | Pratt & Whitney Canada PT6A-42 Turboprop x 2 |
| Service Ceiling      | 35,000 ft (10,700 m)                         |

The Beechcraft Model 200C is part of the Super King Air line that has been in production for over 40 years. Many Model C aircraft became air ambulances.



|                      |  |
|----------------------|--|
| Plane                | Beechcraft Super King Air B200               |
| Year of Introduction | 1972 (Military) 1974 (Civil)                 |
| Type                 | Small Twin-Turboprop Aircraft                |
| Engine               | Pratt & Whitney Canada PT6A-42 Turboprop x 2 |
| Service Ceiling      | 35,000 ft (10,700 m)                         |

The Super King Air line originally included the B200 and B300 models, with the B100 added later and the 'Super' part of the name dropped. The civilian line has been in production since 1974 and continues today.



|                      |                                       |
|----------------------|---------------------------------------|
| Plane                | Beechcraft Model 18                   |
| Year of Introduction | 1937                                  |
| Type                 | Multi Purpose Light Aircraft          |
| Engine               | Pratt & Whitney R-985-AN-1 Radial x 2 |
| Service Ceiling      | 26,000 ft (7,930 m)                   |

Also known as the 'Twin Beech', the Model 18 followed on from the Model 17 Staggerwing and became the most widely produced light aircraft in the world.



# BEARDMORE - BENOIST - BERIEV - BLERIOT

Glasgow based William Beardmore & Company began life as a shipbuilding concern before venturing into aviation in 1913. Initially, the company built the Sopwith Pup under license, followed by the Nieuport 12. In 1924, the Beardmore Wee Bee arrived to take part in aircraft trials. The Benoist Aircraft Company was established in the USA in 1912 and produced over 100 aircraft in five years before it closed due to the untimely and accidental death of its founder. Prior to building aircraft, Benoist had been a successful early aircraft parts supplier. Russia's Beriev Aircraft Company specialised in amphibious aircraft when it was founded by Georgy Mikhailovich in 1934. Today, Beriev continues to design amphibious models for both civilian and military use, employing more than 3,000 staff. One of the most famous names in early aviation was that of Louis Blériot, who was the founder of Blériot Aéronautique. In 1909, Blériot established his own flying schools in France and England, which turned out qualified pilots by the score in time for World War I. Pilots were trained in Blériot built trainers, and the company also owned SPAD following its 1913 acquisition.



|                      |                                 |
|----------------------|---------------------------------|
| Plane                | Beriev A-50                     |
| Year of Introduction | 1984                            |
| Type                 | Airborne Early Warning Aircraft |
| Engine               | Soloviev D-30KP Turbofan x 4    |
| Service Ceiling      | 39,371 ft (12,000 m)            |

The Beriev A-50 first took to the skies in 1978 and entered production in 1984. The aircraft was the replacement for the earlier Tupolev TU-126, and its design was kept secret for two years.



|                      |                             |
|----------------------|-----------------------------|
| Plane                | Benoist Type XII            |
| Year of Introduction | 1912                        |
| Type                 | Pusher Aircraft             |
| Engine               | 6-cyl Roberts Marine Engine |
| Service Ceiling      | Data Unavailable            |

The Benoist Type XII was initially produced as a pusher plane and later as a military, cross country and float plane in 1912. The original model was also known as the Type XII Headless.



|                      |                                     |
|----------------------|-------------------------------------|
| Plane                | Beriev Be-6                         |
| Year of Introduction | 1949                                |
| Type                 | Maritime Reconnaissance Flying Boat |
| Engine               | Shvetsov ASh-73TK Radial x 2        |
| Service Ceiling      | 20,013 ft (6,100 m)                 |

The Beriev Be-6 was also known as the Type 34 by the USA, and the Madge by NATO. Its duties included mine-laying, coastal surveillance and a torpedo/bomber aircraft.



|                      |                        |
|----------------------|------------------------|
| Plane                | Beardmore WeeBee       |
| Year of Introduction | 1924                   |
| Type                 | Single Model Monoplane |
| Engine               | 2-cyl Bristol Cherub   |
| Service Ceiling      | Data Unavailable       |

Only one Beardmore Wee Bee was built, and its purpose was to take part in two-seat light aircraft trials held at the Lympne Aerodrome in Great Britain in 1924. The Wee Bee was the major prize winner.



|                      |                            |
|----------------------|----------------------------|
| Plane                | Beriev Be-103 Bekas        |
| Year of Introduction | 2003                       |
| Type                 | Amphibious Seaplane        |
| Engine               | Continental IO-360-E54 x 2 |
| Service Ceiling      | 16,404 ft (5,000 m)        |

The Beriev Be-103 Bekas was intended to undertake short haul duties in the far north of Russia and Siberia. Its design made it possible to access river and lake regions that had been previously inaccessible.



# BOEING

The USA's Boeing Company is an enormous corporate entity and one of the largest aircraft manufacturers in the world. The company was first established in 1910 by William E. Boeing, and later became incorporated as Pacific Aero Products Co. in 1916. Boeing's knowledge of spruce wood was the key to his early success in aircraft design. Along with George Westervelt, Boeing launched his first aircraft - the B&W Seaplane. When the US entered World War I in 1917, Boeing built seaplanes for the US Navy. The Boeing B-1 flying boat followed after the war, but it was the PW-9 and subsequent Boeing P12 fighter that set Boeing's course for the future and saw it emerge as a leading manufacturer over the ensuing decade. Mail and transport planes followed as the company acquired Pratt & Whitney, Chance Vought and the Hamilton Standard Propellor Company, and Boeing's first passenger plane arrived in 1928. The Boeing 247 and the Stratoliner marked the 1930s, while World War II saw the company produce B-17s and B-29s. In the 1950s, the Stratojet and Stratofortress models were released for the military, while the age of the commercial jet airliner arrived with Boeing's name on it. In 1970, the first commercial Boeing 747 flight took to the air, and as the 1980s dawned, so did competition in the form of Airbus. Today, competition remains healthy, and Boeing continues to prosper in civilian, military and aerospace aircraft, rocket and satellite design.



|                      |  |
|----------------------|--|
| Plane                | Boeing 787 Dreamliner                    |
| Year of Introduction | 2007                                     |
| Type                 | Wide-Body Jet Airliner                   |
| Engine               | GE GEnx-1B or Rolls-Royce Trent 1000 x 2 |
| Service Ceiling      | 43,000 ft (13,100 m)                     |

The 787 Dreamliner was designed for long haul flights. It has the capacity to carry between 242 and 335 passengers in a three-class configuration.



|                      |                                      |
|----------------------|--------------------------------------|
| Plane                | Boeing 747                           |
| Year of Introduction | 1970                                 |
| Type                 | Wide-Body Jet Airliner (Jumbo Jet)   |
| Engine               | General Electric GEnx-2B67 (Current) |
| Service Ceiling      | 45,100 ft (13,750 m)                 |

The Boeing 747 is one of the world's most easily identifiable civilian aircraft, due to its trademark 'hump'. The aircraft was designed as a much higher capacity Boeing 707.



|                      |                                    |
|----------------------|------------------------------------|
| Plane                | Boeing 767                         |
| Year of Introduction | 1982                               |
| Type                 | Wide Body Jet Airliner             |
| Engine               | GE CF6 or Pratt & Whitney 4062 x 2 |
| Service Ceiling      | 43,100 ft (13,100 m)               |

The Boeing 767 entered service as the 767-200 and was followed by the 300 and 400ER variants. Later variants included extended-range, cargo and military models, as well as the use of Rolls-Royce engines.



|                      |                              |
|----------------------|------------------------------|
| Plane                | Boeing 777                   |
| Year of Introduction | 1993                         |
| Type                 | Wide Body Jet Airliner       |
| Engine               | GE 90-115B1 (Current Engine) |
| Service Ceiling      | 43,100 ft (13,100 m)         |

The Boeing 777 is the largest twin-jet aircraft in the world and is capable of carrying up to 396 passengers. Its design spanned the gap between the 747 and 767 models, and it was the first aircraft in the world to be designed entirely by CAD.



|                      |                                     |
|----------------------|-------------------------------------|
| Plane                | Boeing 757                          |
| Year of Introduction | 1983                                |
| Type                 | Narrow Body Jet Airliner            |
| Engine               | Rolls-Royce RB211 or P&W PW2000 x 2 |
| Service Ceiling      | 42,000 ft (13,000 m)                |

The Boeing 757 was the largest of the company's single-aisled passenger airliners, and was built between 1981 and 2004. The aircraft is capable of taking off from short runways, as well as operating at high altitudes.



|                      |                      |
|----------------------|----------------------|
| Plane                | Boeing 737-800       |
| Year of Introduction | 1996                 |
| Type                 | Narrow Body Jetliner |
| Engine               | CFM 56-7B27 x 2      |
| Service Ceiling      | 41,000 ft (12,500 m) |

The Boeing 737 has a pedigree dating back to the beginnings of the company's first passenger aircraft. The airliner is known as the 737 NG (New Generation) and is the third of Boeing's 737 generations.

|                      |                                 |
|----------------------|---------------------------------|
| Plane                | Boeing Model 307 Stratoliner    |
| Year of Introduction | 1940                            |
| Type                 | Commercial Transport Aircraft   |
| Engine               | Wright GR-1820-G102A Radial x 4 |
| Service Ceiling      | 23,300 ft (7,102 m)             |

The Boeing Model 307 Stratoliner was the world's first commercial aircraft to be equipped with a pressurised cabin. The pressurisation allowed the aircraft a greater cruising altitude.



# BLACKBURN - BELL

Robert Blackburn founded Blackburn Aircraft in Leeds, England in 1914. The original company name was the Blackburn Aeroplane & Motor Company, which acquired the Cirrus-Hermes in 1937 and began producing Blackburn Cirrus models. In 1939, the company became Blackburn Aircraft Limited, and World War II saw the company begin producing numerous aircraft. Following the end of the war, Blackburn merged with Hawker Siddeley and then Bristol Siddeley, and by 1963 the Blackburn name was discontinued. The Bell Aircraft Company was founded by Larry Bell in 1935 after years of managing other aircraft companies. The first of Bell's successful models was the Bell P-39, which became renowned as a front-line fighter aircraft. Following the war, Bell developed the unsuccessful XP-77 fighter, as well as a supersonic vertical take-off aircraft in 1961. One of Bell's most significant designs was the Bell X-1 rocket plane, which was the first to break the sound barrier. Ultimately, Bell's role in the history of aircraft design would be to expand research and development in supersonic flight and rocketry, while inspiring future designers to produce many groundbreaking aircraft well into the future.



|                      |                            |
|----------------------|----------------------------|
| Plane                | Blackburn Monoplane Type D |
| Year of Introduction | 1912                       |
| Type                 | Single-Seat Monoplane      |
| Engine               | 7-cyl Gnome Rotary         |
| Service Ceiling      | >4,000 ft (1,200 m)        |

Built in 1912, the Type D was inspired by Blackburn's earlier Mercury aircraft. Instead of ailerons, the Type D was of a wing warping design, with the wings wired above and below.



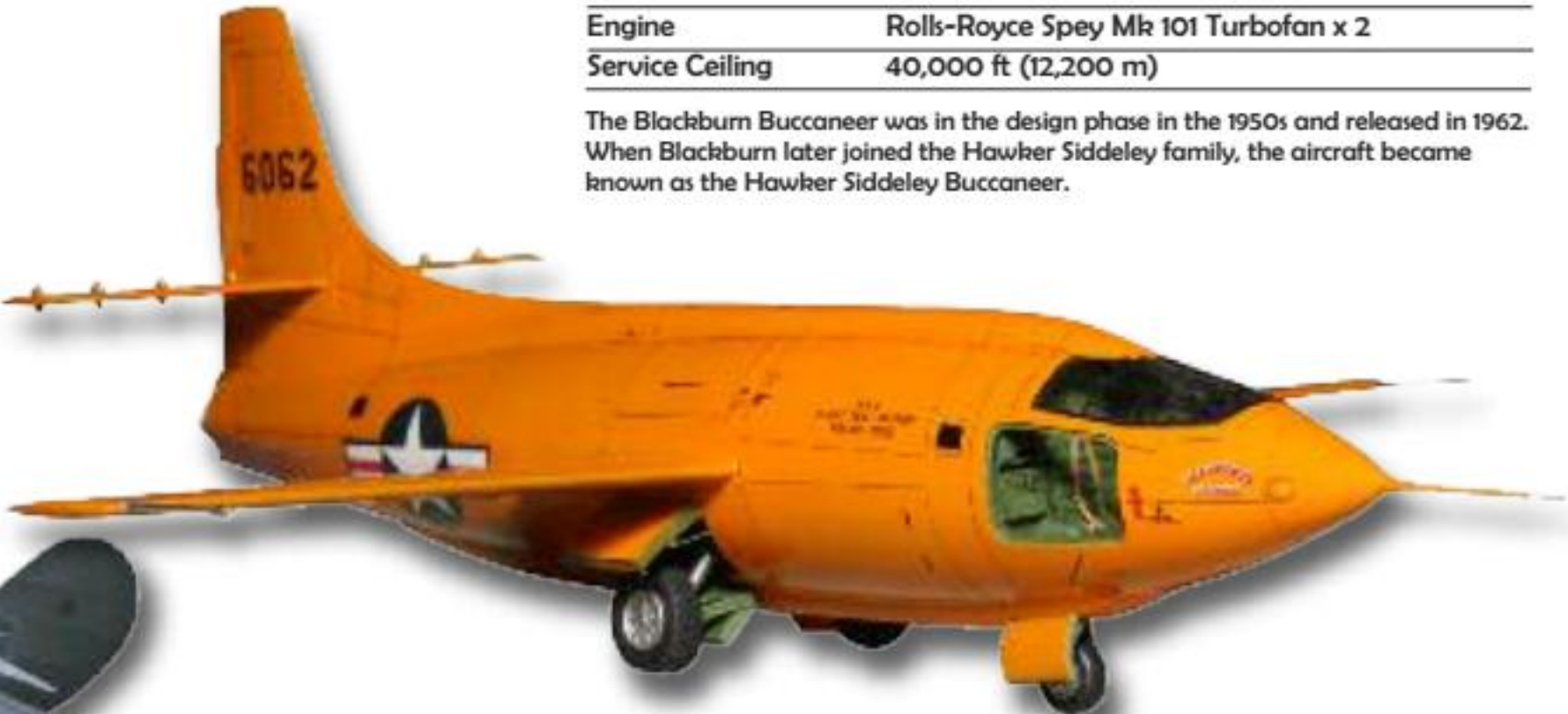
|                      |  |
|----------------------|--|
| Plane                | Bell XP-59A Airacomet                  |
| Year of Introduction | 1942                                   |
| Type                 | Fighter Aircraft                       |
| Engine               | General Electric J31-GE-5 Turbojet x 2 |
| Service Ceiling      | 46,200 ft (14,080 m)                   |

Bell Aircraft designed the Bell XP-59A Airacomet during World War II. The aircraft was never put into service, but it became the basis for later successful turbojet aircraft.



|                      |                                      |
|----------------------|--------------------------------------|
| Plane                | Blackburn Buccaneer                  |
| Year of Introduction | 1962                                 |
| Type                 | Carrier-Borne Attack Aircraft        |
| Engine               | Rolls-Royce Spey Mk 101 Turbofan x 2 |
| Service Ceiling      | 40,000 ft (12,200 m)                 |

The Blackburn Buccaneer was in the design phase in the 1950s and released in 1962. When Blackburn later joined the Hawker Siddeley family, the aircraft became known as the Hawker Siddeley Buccaneer.



|                      |                              |
|----------------------|------------------------------|
| Plane                | Blackburn B-2                |
| Year of Introduction | 1932                         |
| Type                 | Biplane Trainer              |
| Engine               | 4-cyl de Havilland Gipsy III |
| Service Ceiling      | Data Unavailable             |

The Blackburn B-2 was designed with the Blackbird IV trainer as its inspiration. It was built with side-by-side seating and had fixed landing gear.



|                      |                      |
|----------------------|----------------------|
| Plane                | Bell P-63C Kingcobra |
| Year of Introduction | 1943                 |
| Type                 | Fighter Aircraft     |
| Engine               | Allison V-1710-117   |
| Service Ceiling      | 43,000 ft (13,100 m) |

The Bell-63 was first designed during World War II as a result of issues encountered with Bell's P-39 Aircobra. The final design did not go into service with the USAF, but the Soviet Air Force used it successfully.



|                      |                                  |
|----------------------|----------------------------------|
| Plane                | Bell X-1                         |
| Year of Introduction | BELL AIRCRAFT                    |
| Type                 | Research Rocket Powered Aircraft |
| Engine               | Reaction Motors XLR-11-RM3       |
| Service Ceiling      | >90,000 ft (27,432 m)            |

The Bell X-1 was the first of Bell's X-Planes, and when piloted by Chuck Yeager, it exceeded the speed of sound. It reached 1,600 km/h (1,000 mph) during a 1948 test flight.



|                      |                                  |
|----------------------|----------------------------------|
| Plane                | Blackburn B-101 Beverley         |
| Year of Introduction | 1955                             |
| Type                 | Heavy Transport Aircraft         |
| Engine               | Bristol Centaurus 173 Radial x 4 |
| Service Ceiling      | 16,000 ft (4,900 m)              |

The Blackburn B-101 Beverley was in service for 10 years as part of the RAF's Transport Command. It had a 36 passenger seating capacity and was designed with a short landing capabilities.

|                      |                            |
|----------------------|----------------------------|
| Plane                | Bell X-1A                  |
| Year of Introduction | 1953                       |
| Type                 | Powered Aircraft           |
| Engine               | Reaction Motors XLR-11-RM3 |
| Service Ceiling      | 71,902 ft (21,916 m)       |

The Bell X-1A followed the Bell X-1as an experimental aircraft. It was powered by the same engine as the X-1 and first flew manned from Edwards Air Force Base in February, 1953. Later in the same year, the aircraft achieved a speed of Mach 2.44 when piloted by Chuck Yeager.



# BREWSTER - BRISTOL

In 1932, aeronautical engineer James Work purchased the aircraft division of the US based Brewster & Co and began designing and constructing wing panels and seaplane floats. The company began on its own aircraft designs shortly thereafter, with plants opened in New York, New Jersey and Long Island, and a later factory in Pennsylvania. The first Brewster aircraft was the Brewster SBA, followed by the Brewster SB2A Buccaneer, which was called the Bermuda in Great Britain. The company then released the Brewster F2A (Buffalo), which later became the Grumman F4F Wildcat. In 1942, the US Navy seized Brewster as a result of illegal practices, and once World War II came to an end, so did the Brewster name. The Bristol Aeroplane Company began life as the British & Colonial Aeroplane Company and grew to become one of Great Britain's most significant aircraft companies. During its successful life, the company produced notable models such as the Bristol Boxkite, Blenheim, Britannia and Beaufighter among others. In 1956, the company was split into two divisions, namely Bristol Aero Engines and Bristol Aircraft, before becoming part of a larger merger that led to the formation of the British Aircraft Corporation (BAC) and the emergence of Bristol-Siddeley.



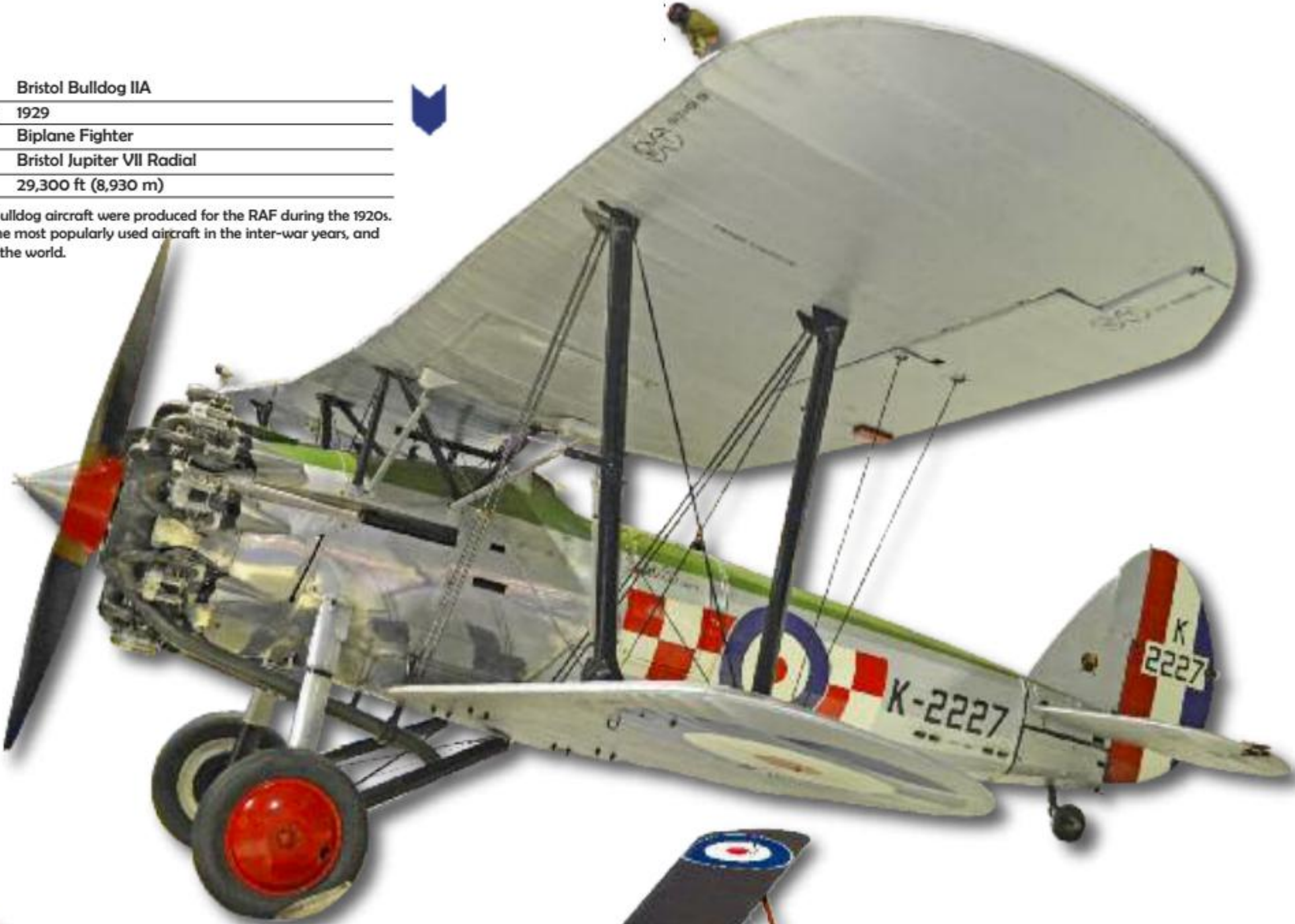
|                      |                    |
|----------------------|--------------------|
| Plane                | Bristol Boxkite    |
| Year of Introduction | 1910               |
| Type                 | Pusher Biplane     |
| Engine               | Gnome Omega Rotary |
| Service Ceiling      | Data Unavailable   |

Officially named the Bristol Biplane, the aircraft was known colloquially as the Bristol Boxkite. It was the company's first aircraft and was also one of the first aircraft built in any great quantity. The model was used as a trainer until the beginning of World War I.



|                      |                            |
|----------------------|----------------------------|
| Plane                | Bristol Bulldog IIA        |
| Year of Introduction | 1929                       |
| Type                 | Biplane Fighter            |
| Engine               | Bristol Jupiter VII Radial |
| Service Ceiling      | 29,300 ft (8,930 m)        |

More than 400 Bristol Bulldog aircraft were produced for the RAF during the 1920s. The Bristol was one of the most popularly used aircraft in the inter-war years, and it was in service around the world.



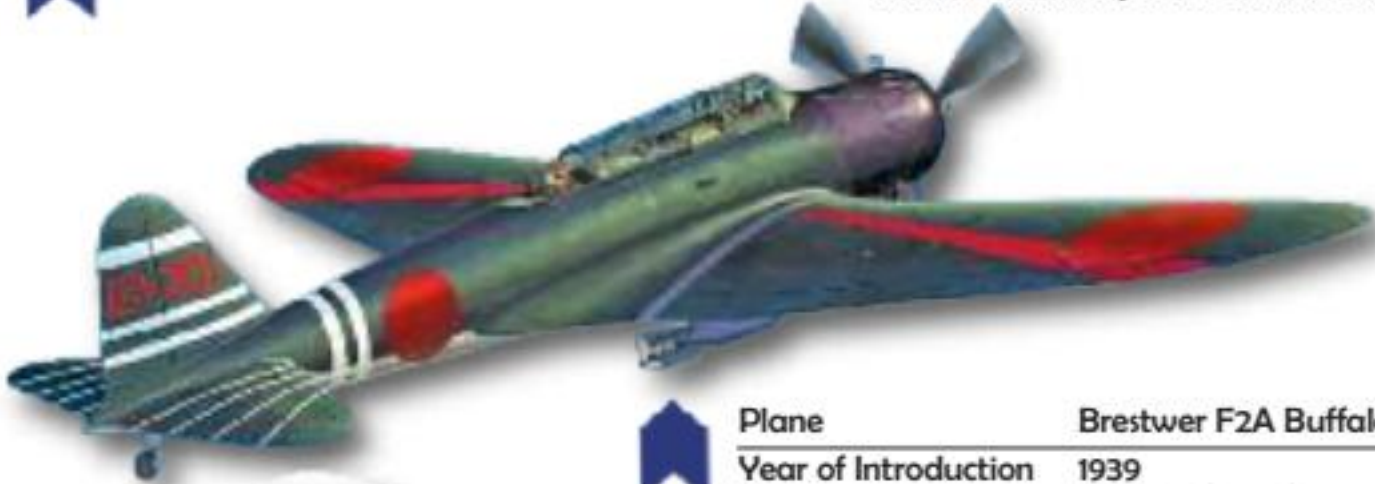
|                      |                              |
|----------------------|------------------------------|
| Plane                | Bristol M.1C Monoplane Scout |
| Year of Introduction | 1917                         |
| Type                 | Monoplane Fighter            |
| Engine               | Le Rhône 9Ja                 |
| Service Ceiling      | 20,000 ft (6,096 m)          |

The M.1C Monoplane Scout was used as a fighter during World War I. Powered by a Le Rhône engine, the model was superseded by the M.1D, which sported a Lucifer engine and was raced into the 1920s.



|                      |                                  |
|----------------------|----------------------------------|
| Plane                | Bristol F.2B                     |
| Year of Introduction | 1916                             |
| Type                 | Fighter & Reconnaissance Biplane |
| Engine               | V12 Rolls-Royce Falcon III       |
| Service Ceiling      | 18,000 ft (5,500 m)              |

Known colloquially as the Bristol Fighter, the F.2B was an agile two-seater fighter that was extremely successful against single-seat fighter planes of its time. It remained in military service well into the 1930s.



|                      |                                  |
|----------------------|----------------------------------|
| Plane                | Brestwer F2A Buffalo             |
| Year of Introduction | 1939                             |
| Type                 | Fighter Aircraft                 |
| Engine               | 9-cyl Wright R-1820-40 Cyclone 9 |
| Service Ceiling      | 33,200 ft (10,119 m)             |

The Brewster F2A Buffalo was one of the first monoplanes in the USA equipped with an arrestor hook for service on aircraft carriers. With the advancement of technology during World War II, the Buffalo became quickly outdated when faced with the Japanese Mitsubishi A6M Zero,



|                      |                           |
|----------------------|---------------------------|
| Plane                | ACAZ C.2                  |
| Year of Introduction | 1926                      |
| Type                 | Prototype Fighter Biplane |
| Engine               | Hispano-Suiza 12Ha V-12   |
| Service Ceiling      | Unknown                   |

The ACAZ C.2 was a prototype constructed from duralumin. It took off for a 1928 expedition to the Belgian Congo, but never made it out of Belgium.



# BRITISH AIRCRAFT CORPORATION (BAC)

The British Aircraft Corporation was more commonly known as BAC, and it came into being as a result of the merger between several aircraft manufacturers. The merger was the result of government pressure to consolidate Great Britain's manufacturing sector, and the initial companies involved were Vickers-Armstrong, Bristol and English Electric. English



|                      |  |
|----------------------|--|
| Plane                | Jet Provost T5A                          |
| Year of Introduction | 1955                                     |
| Type                 | Jet Trainer                              |
| Engine               | Armstrong Siddeley Viper Mk-102 Turbojet |
| Service Ceiling      | 36,750 ft (11,200 m)                     |

The Jet Provost T5 and T5A were in service with the RAF between 1955 and 1993. Later designs transformed the aircraft from jet trainer to an armed ground attack variant. In total, 94 units of the T5A variant were produced.



|                      |                                    |
|----------------------|------------------------------------|
| Plane                | BAC 221 WG774                      |
| Year of Introduction | 1954                               |
| Type                 | Supersonic Aircraft (Experimental) |
| Engine               | Rolls-Royce Avon 200               |
| Service Ceiling      | Data Unavailable                   |

Originally produced by Fairey Aviation as a research aircraft, the BAC 221 WG774 was more commonly known as the Fairey Delta before its modification to become the BAC 221.



|                      |  |
|----------------------|--|
| Plane                | Jet Provost T3A                          |
| Year of Introduction | 1955                                     |
| Type                 | Jet Trainer                              |
| Engine               | Armstrong Siddeley Viper Mk-102 Turbojet |
| Service Ceiling      | 36,750 ft (11,200 m)                     |

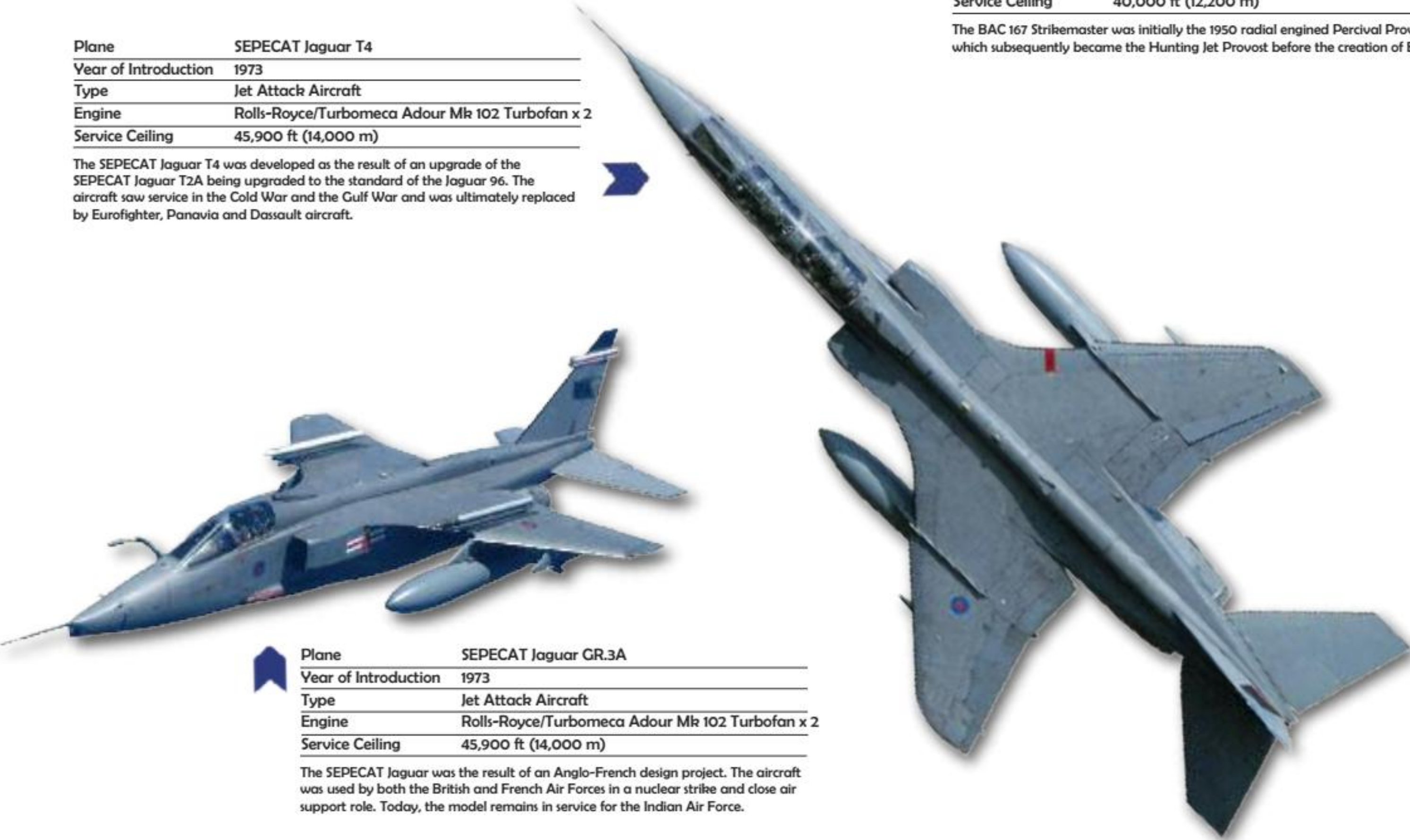
The origins of the BAC Jet Provost lay in early developments made by Hunting Percival, and more specifically, the Percival Provost trainer. Provosts were successfully exported to many other nations.

|                      |                                     |
|----------------------|-------------------------------------|
| Plane                | BAC 167 Strikemaster                |
| Year of Introduction | 1967                                |
| Type                 | Jet Trainer / Light Attack Aircraft |
| Engine               | Rolls-Royce Viper Mk.535 Turbojet   |
| Service Ceiling      | 40,000 ft (12,200 m)                |

The BAC 167 Strikemaster was initially the 1950 radial engine Percival Provost, which subsequently became the Hunting Jet Provost before the creation of BAC.

|                      |   |
|----------------------|---|
| Plane                | SEPECAT Jaguar T4                               |
| Year of Introduction | 1973  |
| Type                 | Jet Attack Aircraft                             |
| Engine               | Rolls-Royce/Turbomeca Adour Mk 102 Turbofan x 2 |
| Service Ceiling      | 45,900 ft (14,000 m)                            |

The SEPECAT Jaguar T4 was developed as the result of an upgrade of the SEPECAT Jaguar T2A being upgraded to the standard of the Jaguar 96. The aircraft saw service in the Cold War and the Gulf War and was ultimately replaced by Eurofighter, Panavia and Dassault aircraft.




|                      |   |
|----------------------|---|
| Plane                | SEPECAT Jaguar GR.3A                            |
| Year of Introduction | 1973  |
| Type                 | Jet Attack Aircraft                             |
| Engine               | Rolls-Royce/Turbomeca Adour Mk 102 Turbofan x 2 |
| Service Ceiling      | 45,900 ft (14,000 m)                            |

The SEPECAT Jaguar was the result of an Anglo-French design project. The aircraft was used by both the British and French Air Forces in a nuclear strike and close air support role. Today, the model remains in service for the Indian Air Force.



# BOULTON & PAUL - BRITISH AIRCRAFT MANUFACTURING - BRITTEN NORMAN - BÜCKER FLUGZEUGBAU

Boulton & Paul was an aircraft manufacturing company established before World War I, and it built the Royal Aircraft Factory FE.2b under license. During the war, the company moved into producing Sopwith Camels. In 1919, the company released the Boulton & Paul P.10. In the 1930s, a merger with Dowty ensued to create Dowty Aerospace. The former British Klemm Aeroplane Company became the British Aircraft Manufacturing Company Limited in the 1930s and manufactured a few aircraft before World War II. Britten-Norman began life as a crop-spraying equipment manufacturer in the mid 1950s, and began to develop twin-engined utility aircraft that included the BN-2 Islander among others. In Europe, Bücker-Flugzeugbau GmbH was established in 1932 as a sports and trainer aircraft manufacturer. Several Bücker models were extremely successful, including the Bü 131 Jungmann in 1934, the 1936 Bü 133 Jungmeister and the Bü 181 Bestmann in 1939. Additionally, Bücker-Flugzeugbau built a number of different manufacturers' models under license, which included Focke-Wulf, Henschel and Junkers models.



|                      |                                |
|----------------------|--------------------------------|
| Plane                | Boulton Paul P-108 Sea Balliol |
| Year of Introduction | 1950                           |
| Type                 | Military Trainer               |
| Engine               | Rolls-Royce Merlin 35          |
| Service Ceiling      | 32,500 ft (9,909 m)            |

Both of Boulton Paul's Balliol and Sea Balliol aircraft were designed as advanced trainers for both the RAF and the Royal Navy's Fleet Air Arm. The Sea Balliol was equipped with deck landing gear.



|                      |                        |
|----------------------|------------------------|
| Plane                | Bücker Bü 131 Jungmann |
| Year of Introduction | 1935                   |
| Type                 | Trainer Biplane        |
| Engine               | 4-cyl Hirth HM 504     |
| Service Ceiling      | 13,300 ft (4,050 m)    |

The Hirth engine used in the Bücker Bü 131 Jungmann was equipped with inverted oil and fuel systems to allow for aerobatic manoeuvres in flight. Sold throughout Spain, Switzerland and Czechoslovakia, around 200 models survive in private hands today.

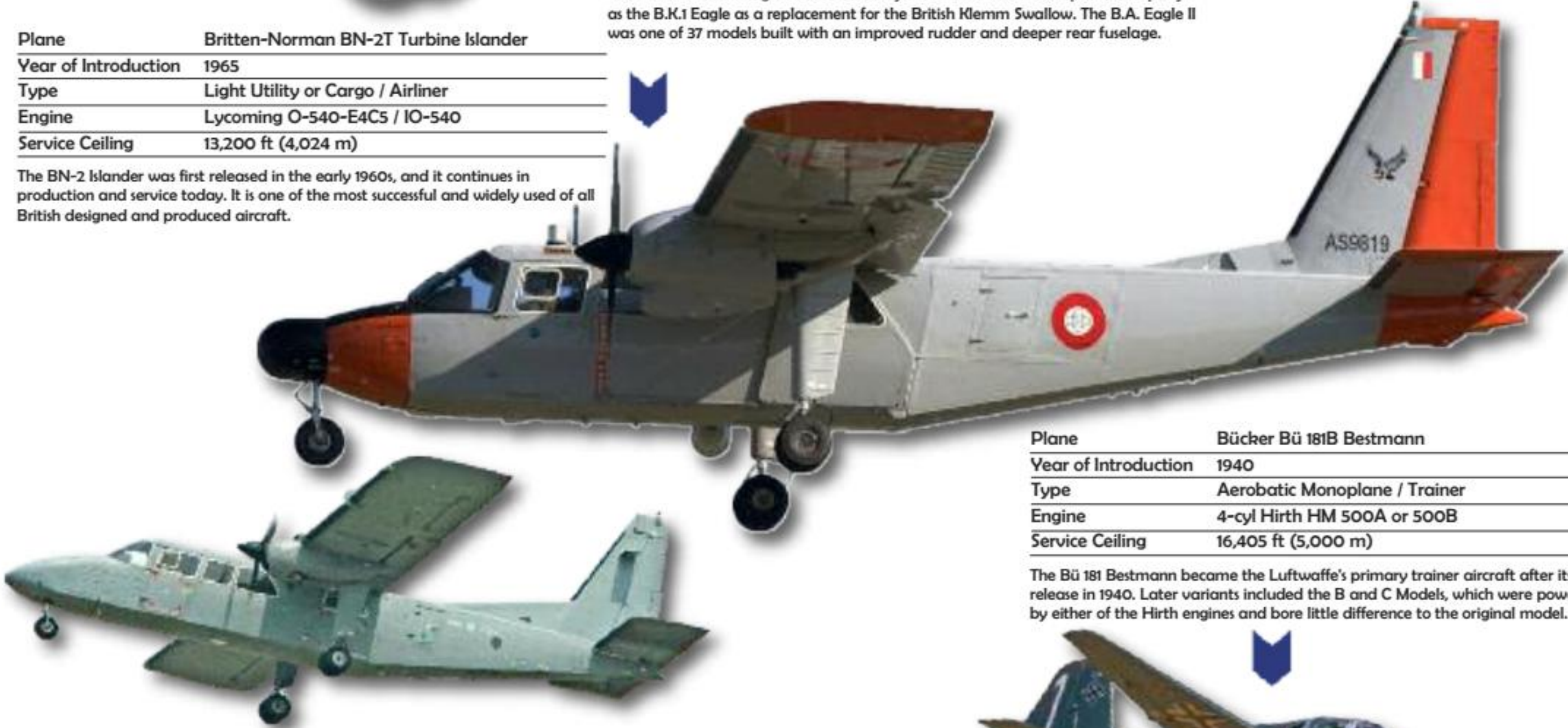


|                      |                                |
|----------------------|--------------------------------|
| Plane                | B.A.Eagle II                   |
| Year of Introduction | 1934                           |
| Type                 | Light Aircraft - 3 Seat        |
| Engine               | 4-cyl de Havilland Gipsy Major |
| Service Ceiling      | 16,000 ft (4,900 m)            |

The first of the B.A Eagles was released by the British Klemm Aeroplane Company as the B.K.1 Eagle as a replacement for the British Klemm Swallow. The B.A. Eagle II was one of 37 models built with an improved rudder and deeper rear fuselage.

|                      |                                       |
|----------------------|---------------------------------------|
| Plane                | Britten-Norman BN-2T Turbine Islander |
| Year of Introduction | 1965                                  |
| Type                 | Light Utility or Cargo / Airliner     |
| Engine               | Lycoming O-540-E4C5 / IO-540          |
| Service Ceiling      | 13,200 ft (4,024 m)                   |

The BN-2 Islander was first released in the early 1960s, and it continues in production and service today. It is one of the most successful and widely used of all British designed and produced aircraft.



|                      |                               |
|----------------------|-------------------------------|
| Plane                | Bücker Bü 181B Bestmann       |
| Year of Introduction | 1940                          |
| Type                 | Aerobatic Monoplane / Trainer |
| Engine               | 4-cyl Hirth HM 500A or 500B   |
| Service Ceiling      | 16,405 ft (5,000 m)           |

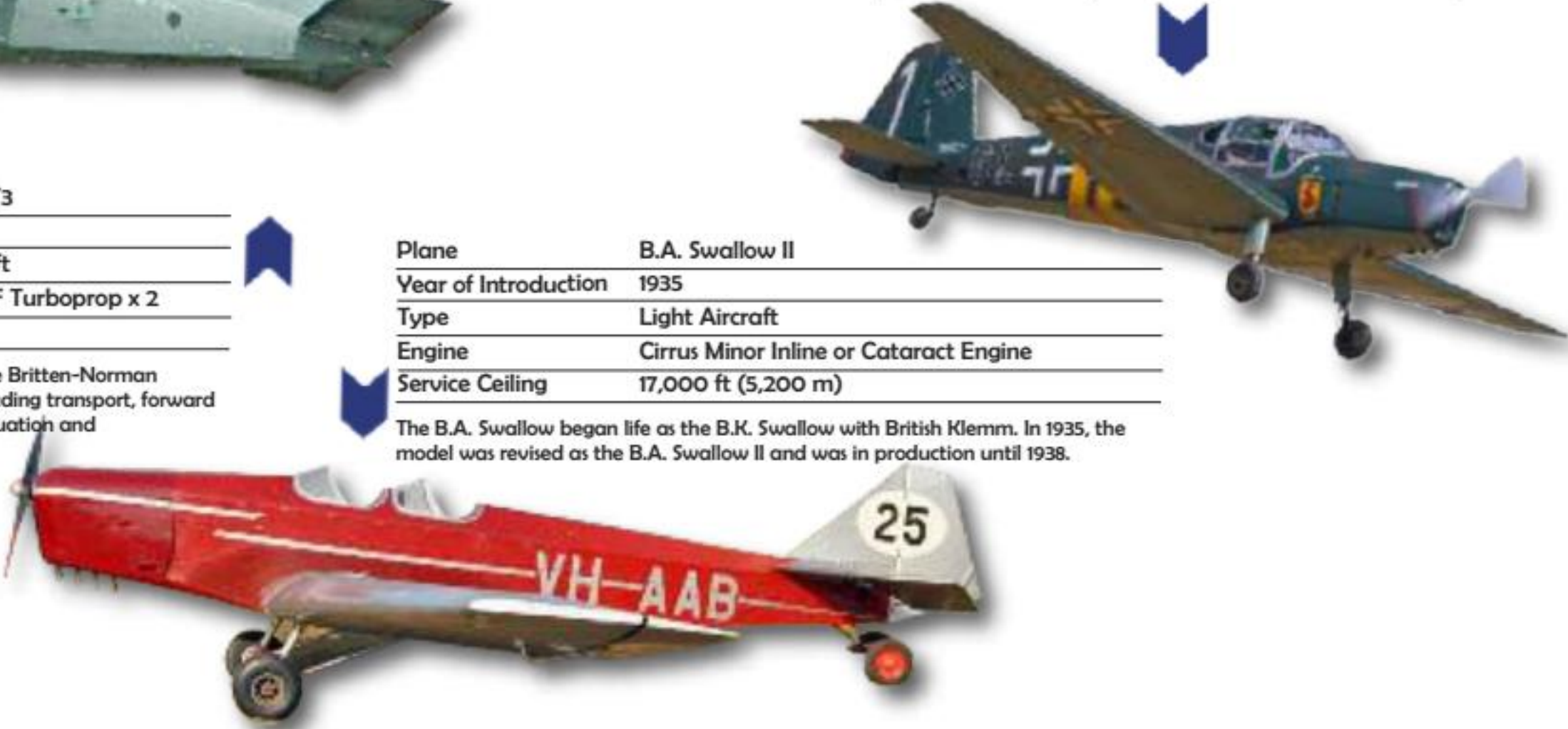
The Bü 181 Bestmann became the Luftwaffe's primary trainer aircraft after its release in 1940. Later variants included the B and C Models, which were powered by either of the Hirth engines and bore little difference to the original model.

|                      |  |
|----------------------|--|
| Plane                | Britten-Norman Defender T3                 |
| Year of Introduction | 1970                                       |
| Type                 | Multi-Role Transport Aircraft              |
| Engine               | Rolls-Royce Allison 250-B17F Turboprop x 2 |
| Service Ceiling      | Data Unavailable                           |

The Defender T3 was released as the military version of the Britten-Norman Islander in 1970. It is used in a variety of military roles, including transport, forward air control, light attack, counter-insurgency, casualty evacuation and reconnaissance.

|                      |  |
|----------------------|--|
| Plane                | B.A. Swallow II                        |
| Year of Introduction | 1935                                   |
| Type                 | Light Aircraft                         |
| Engine               | Cirrus Minor Inline or Cataract Engine |
| Service Ceiling      | 17,000 ft (5,200 m)                    |

The B.A. Swallow began life as the B.K. Swallow with British Klemm. In 1935, the model was revised as the B.A. Swallow II and was in production until 1938.





# BOMBARDIER AEROSPACE

Alongside Embraer, Bombardier Aerospace is the world's third largest aircraft manufacturer behind Boeing and Airbus. In 1986, Bombardier acquired the struggling Canadair and followed up with the acquisition of Short Brothers three years later. Learjet and de Havilland Canada joined the Bombardier family in the early 1990s, and the combined experience and talents of the group placed Bombardier in a superior position within the industry. In the early 2010s, Bombardier began producing significant aircraft, including the widely used Dash 8 series of regional airliners, the Challenger and Global Express business jets and the Bombardier 415 water bomber. By 2012, the company was also designing and manufacturing flight controls in Morocco, Africa, and also formed manufacturing relationships with Korea Aerospace, Korea Air Lines and Switzerland's Vista Jet. A 2014 slump caused Bombardier to cut its work force and split the company into three separate divisions, those being engineering services, business aircraft and commercial aircraft/aerostructures. Today, Bombardier's future rests mainly on the Canadian government's ability to bail it out as a means of continuing.



|                      |                                    |
|----------------------|------------------------------------|
| Plane                | Bombardier 415                     |
| Year of Introduction | 1994                               |
| Type                 | Amphibious Aircraft / Water Bomber |
| Engine               | Pratt & Whitney Canada PW123AF x 2 |
| Service Ceiling      | 14,700 ft (4,500 m)                |

The Bombardier 415 was originally released as the Canadair CL-415. Designed for aerial firefighting, the model was marketed as the 'Superscooper' and was capable of taking in 6,137 litres of water in only 12 seconds.



|                      |                             |
|----------------------|-----------------------------|
| Plane                | Canadair T-33 Shooting Star |
| Year of Introduction | 1948                        |
| Type                 | Jet Trainer                 |
| Engine               | Allison J33-A-35 Turbojet   |
| Service Ceiling      | 48,000 ft (14,630 m)        |

The Bombardier Dash 8 is a model in Bombardier's Q-Series. It was previously known as the de Havilland Canada Dash 8 and the DHC-8. The Dash 8 was a development of the earlier de Havilland Canada Dash 7.



|                      |                                  |
|----------------------|----------------------------------|
| Plane                | Bombardier Dash 8                |
| Year of Introduction | 1984                             |
| Type                 | Medium Range Turboprop Airliner  |
| Engine               | Pratt & Whitney Canada PW100 x 2 |
| Service Ceiling      | 25,000 ft (7,620 m)              |

The Bombardier Dash 8 is a model in Bombardier's Q-Series. It was previously known as the de Havilland Canada Dash 8 and the DHC-8. The Dash 8 was a development of the earlier de Havilland Canada Dash 7.

|                      |                                    |
|----------------------|------------------------------------|
| Plane                | Bombardier CRJ1000                 |
| Year of Introduction | 2009                               |
| Type                 | Jet Airliner                       |
| Engine               | General Electric GE CF34-8C5A1 x 2 |
| Service Ceiling      | Data Unavailable                   |

With seating capacity for 100, the Bombardier CRJ1000 was designed to compete with a similar offering produced by Embraer. The first two customers who purchased the jets were Air Nostrum and Brit Air.



|                      |   |
|----------------------|---|
| Plane                | Bombardier Global Express (BD-700-1A10) |
| Year of Introduction | 1996                                    |
| Type                 | Long Range Business Jet                 |
| Engine               | Rolls-Royce BR710A2-20 Turbofan x 2     |
| Service Ceiling      | 51,000 ft (15,545 m)                    |

Built in Toronto, Canada, the Global Express BD-700-1A10 was the first of three Global Express models built by Bombardier. In its lifetime, the Global Express has also been modified for various uses within the military.

|                      |                                     |
|----------------------|-------------------------------------|
| Plane                | Bombardier Global 6000              |
| Year of Introduction | 2006                                |
| Type                 | Ultra-Long Range Business Jet       |
| Engine               | Rolls-Royce BR710A2-20 Turbofan x 2 |
| Service Ceiling      | 51,000 ft (15,545 m)                |

The Global 6000 was an upgraded variant of the original Bombardier Global Express long range jet. It was originally launched as the Global Express XRS.

|                      |                                    |
|----------------------|------------------------------------|
| Plane                | Bombardier CRJ700                  |
| Year of Introduction | 2001                               |
| Type                 | Passenger Airliner                 |
| Engine               | General Electric GE CF34-8C5B1 x 2 |
| Service Ceiling      | Data Unavailable                   |

The Bombardier CRJ700 was in the design phase from 1995. The model has a seating capacity of up to 78, competing directly with the Embraer 170, which seated 70.



|                      |                                  |
|----------------------|----------------------------------|
| Plane                | Bombardier CRJ900                |
| Year of Introduction | 1999                             |
| Type                 | Passenger Airliner               |
| Engine               | General Electric GE CF34-8C5 x 2 |
| Service Ceiling      | Data Unavailable                 |

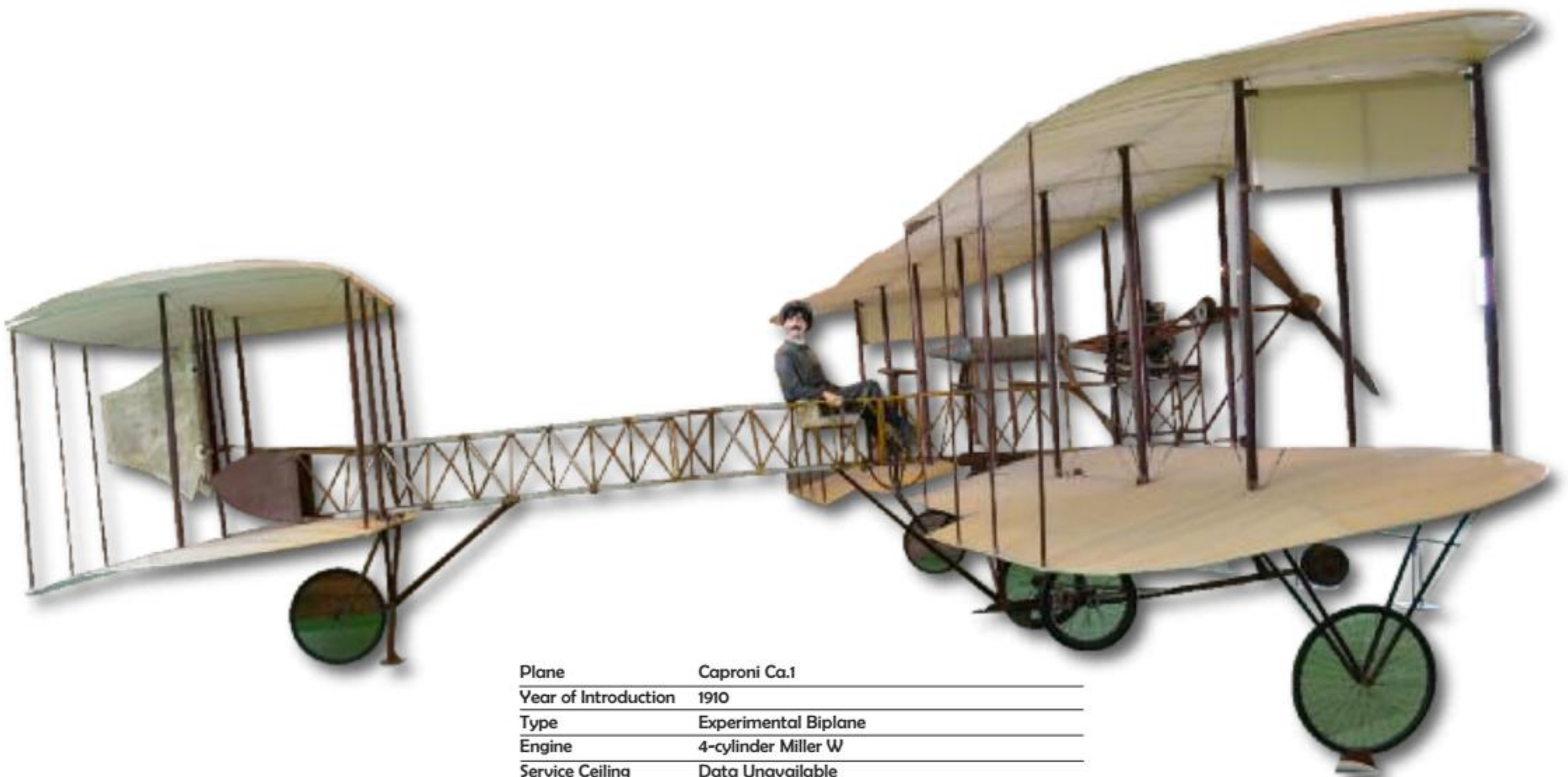
The Bombardier CRJ900 was the elongated version of the CRJ700. It featured seating capacity for up to 90 passengers, an advanced digital engine control system and a lowered cabin floor.





# CAP - CAPRONI

CAP is the acronym for Constructions Aéronautiques Parisiennes, a company established in France that became Apex Aircraft following the acquisition of the bankrupt aircraft manufacturer. The history of CAP began in the 1960s when the company's designer (Mudry) released a line of Mudry CAP models that spanned over two decades. Following the purchase of Apex, the company released models branded as CAP, Robin and Alpha. Caproni was established in 1908 by Gianni Caproni and was originally known as Società de Agostini e Caproni and later Società Caproni e Comitti. Based in Milan, Italy, Caproni went on to produce a line of heavy bomber aircraft that were used during World War I by British, French, Italian and US air forces. In the inter-war years, Caproni produced light transport aircraft and more bombers. In 1950, Caproni stopped producing aircraft, apart from a single division of the company - Caproni Vizzola. In 1983, Caproni Vizzola was purchased by Agusta.



|                      |                      |
|----------------------|----------------------|
| Plane                | Caproni Ca.1         |
| Year of Introduction | 1910                 |
| Type                 | Experimental Biplane |
| Engine               | 4-cylinder Miller W  |
| Service Ceiling      | Data Unavailable     |

The Caproni Ca.10 was Gianni Caproni's first solely designed aircraft, and it was produced as an experimental model. It had a nose mounted engine, but its propellers sat in front of the wings.



|                      |  |
|----------------------|--|
| Plane                | Caproni Ca.313                         |
| Year of Introduction | 1939                                   |
| Type                 | Reconnaissance Bomber                  |
| Engine               | Isotta Fraschini Delta R.C.35 I-D5 x 2 |
| Service Ceiling      | 27,880 ft (8,500 m)                    |

The Caproni Ca.313 was a development of the earlier Ca.310 and Ca.311 aircraft. The model was basically a Ca.310 with the Piaggio engine replaced by that of Isotta Fraschini's.



|                      |                                |
|----------------------|--------------------------------|
| Plane                | CAP 232                        |
| Year of Introduction | After 1994                     |
| Type                 | Aerobatic Aircraft             |
| Engine               | 6-cyl Lycoming AEIO-540-L1 B5D |
| Service Ceiling      | Data Unavailable               |

The CAP 232 was designed as a modification of earlier 230, 231 and 231EX models. During production, the new aircraft was upgraded with a strengthened fuselage after a fatal accident in 2005.



|                      |                          |
|----------------------|--------------------------|
| Plane                | Caproni Ca.100 Idro      |
| Year of Introduction | 1928                     |
| Type                 | Seaplane                 |
| Engine               | 4-cyl de Havilland Gipsy |
| Service Ceiling      | 13,125 ft (4,000 m)      |

The Caproni Ca.100 Idro was the seaplane variant of the Caproni Ca.100. The Ca.100 was also produced by a number of other manufacturers, including Breda, C.N.A., Macchi and Bergamasche.

|                      |                              |
|----------------------|------------------------------|
| Plane                | Mudry CAP 10                 |
| Year of Introduction | 1970                         |
| Type                 | Trainer / Aerobatic Aircraft |
| Engine               | 4-cyl Lycoming AEIO-360-B2F  |
| Service Ceiling      | 16,404 ft (5,000 m)          |

The design of the Mudry CAP 10 was based on the popular Piel Super Emeraude cantilever monoplane that was produced by a number of manufacturers. It was originally called the CP100.



|                      |                       |
|----------------------|-----------------------|
| Plane                | Caproni Campini N.1   |
| Year of Introduction | 1940                  |
| Type                 | Experimental Aircraft |
| Engine               | Isotta Fraschini V-12 |
| Service Ceiling      | 13,300 ft (4,000 m)   |

The Caproni Campini N.1 was developed at the same time that Heinkel was experimenting with their own He 178. The single model N.1 was powered by a jet engine type that was well ahead of its time.





# CESSNA

In 1911, Kansas farmer Clyde Cessna developed his own aircraft and became the first aviator to fly between the Rocky Mountains and the Mississippi River. Cessna then ventured into developing fabric and wood aircraft, relocating his business to form a partnership and establish the Cessna Roos Aircraft Company with partner Victor Roos. Roos left the company within a short period of time, and the Company became the Cessna Aircraft Company. In 1929, Cessna released the Cessna DC-6, and the company closed within a few short years as a result of the Wall Street Crash. Cessna's nephews purchased the company in 1934, reopening to release the Cessna C-37 seaplane and later models for military use during World War II. In 1946, the Cessna Models 120 and 140 were produced, but it was in 1956 that the company's greatest selling model (the Cessna 172) was produced. The company developed a relationship with France's Reims Aviation in 1960, and by 1963, 50,000 Cessna aircraft had been produced. Cessna was acquired by General Dynamics in 1985, and was later sold to Textron Inc. in 1992.



|                      |                               |
|----------------------|-------------------------------|
| Plane                | Cessna O-2A Super Skymaster   |
| Year of Introduction | 1967 to 1975                  |
| Type                 | Military FAC Aircraft         |
| Engine               | 6-cyl Continental IO-360C x 2 |
| Service Ceiling      | 18,000 ft (5,490 m)           |

Known as the 'Oscar Deuce' within the US military, the Cessna O-2A Super Skymaster was a variant of the O-2 Skymaster. It was used for forward air control purposes and was capable of carrying flares, gun-pods and rockets under its wing.



|                      |                                   |
|----------------------|-----------------------------------|
| Plane                | Cessna Citation Sovereign         |
| Year of Introduction | 2004 to Present                   |
| Type                 | Business Jet                      |
| Engine               | Pratt & Whitney Canada PW306D x 2 |
| Service Ceiling      | Data Unavailable                  |

The Citation Sovereign was released in 2004 and remains in production today. The mid-sized business jet is capable of long haul flights and is used mainly as a corporate jet.



|                      |                                   |
|----------------------|-----------------------------------|
| Plane                | Cessna Skyhawk P                  |
| Year of Introduction | 1981                              |
| Type                 | Single Engine Fixed Wing Aircraft |
| Engine               | 4-cyl Lycoming O-320-D2J          |
| Service Ceiling      | 13,500 ft (4,100 m)               |

The four-seat Cessna Skyhawk P was designed to solve issues with the original Skyhawk model, which had an engine reliability problem. A new Lycoming engine was introduced, and the Skyhawk P went on to experience excellent sales figures.

|                      |  |
|----------------------|--|
| Plane                | Cessna T-37C 'Tweety Bird'                 |
| Year of Introduction | 1957                                       |
| Type                 | Jet Trainer/Attack Aircraft                |
| Engine               | Continental-Teledyne J69-T-25 Turbojet x 2 |
| Service Ceiling      | 35,000 ft (7,620 m)                        |

The T-37C was designed as an upgrade to the T-37 'Tweet', and was used as the USAF's primary trainer in the late 1950s. The A-37 Dragonfly was another variant of the T-37 and was used during the Vietnam War.



|                      |                           |
|----------------------|---------------------------|
| Plane                | Cessna 140                |
| Year of Introduction | 1946                      |
| Type                 | General Aviation Aircraft |
| Engine               | 4-cyl Continental C-85    |
| Service Ceiling      | 15,500 ft (4,724 m)       |

The Cessna 140 was part of the Cessna 120 and 140 family, and was first released at the end of World War II. The model was in production until 1951 to make way for the Cessna 150.



|                      |                         |
|----------------------|-------------------------|
| Plane                | Cessna Citation Jet CJ2 |
| Year of Introduction | 1991 to Present         |
| Type                 | Light Business Jet      |
| Engine               | Williams FJ44-3A-24     |
| Service Ceiling      | 45,000 ft (13,716 m)    |

The Citation Jet CJ2 was a variant of the M2/CJ series. Numerous models were marketed under the name, which today feature advanced avionics and the latest ergonomic improvements.



|                      |                                    |
|----------------------|------------------------------------|
| Plane                | Cessna 208 Caravan                 |
| Year of Introduction | 1984                               |
| Type                 | Short Haul Regional Airliner       |
| Engine               | Pratt & Whitney PT6A-140 Turboprop |
| Service Ceiling      | 25,000 ft (7,620 m)                |

The Cessna 208 Caravan was introduced in 1984 as a nine-seat regional airliner. A modified variant has a seating capacity of up to 14 and is generally used today to feed passengers between larger airports.



# CHANCE VOUGHT

The name of Vought is a long-used one in aircraft and motor manufacturing circles, and Chance Vought was the first of many Vought related incarnations. Chance Vought was established by Chance M. Vought and his business partner, Birdseye Lewis, in 1917. During the 1920s, Chance Vought designed and produced aircraft for use on aircraft carriers, and by the 1930s, the company was producing aircraft for the armed forces. Chance M. Vought died in 1930, but his company continued as Vought and moved to Conneticut, USA. In 1934, Vought was a part of the United Aircraft Corporation, and the company was relocated and placed in charge of UAC's Sikorsky division, renaming the company Vought-Sikorsky. During World War II, Chance developed the F4U Corsair, producing thousands of units for the war effort. Following the end of the war, Vought was relocated yet again to Texas, separating from UAC in 1954 to become a fully independent company (Chance Vought Aircraft Inc.). The company released the supersonic F-8 Crusader in 1957, following it up in 1965 with the A-7 Corsair, which was used during the Vietnam War and the 1983 invasion of Grenada and raids in Lybya and Syria in the 1980s. Following a series of successive buy-outs, the company is now known as the Vought Aircraft Division of Triumph Aerostructures.



|                      |   |
|----------------------|---|
| Plane                | Vought V-65C1 Corsair                   |
| Year of Introduction | 1926                                    |
| Type                 | Scout & Observation Biplane             |
| Engine               | Pratt & Whitney R-1690-42 Hornet Radial |
| Service Ceiling      | 18,600 ft (5,670 m)                     |

The original Vought O2U Corsair was powered by a Pratt & Whitney Wasp engine, and the 65C1 variant was equipped with the later Pratt & Whitney Hornet. Almost 300 units were produced, including versions for mainland China.



|                      |  |
|----------------------|--|
| Plane                | Vought F7U Cutlass                       |
| Year of Introduction | 1951                                     |
| Type                 | Carrier-Based Jet Fighter/Fighter Bomber |
| Engine               | Westinghouse J46-WE-8B Turbojet x 2      |
| Service Ceiling      | 40,600 ft (12,375 m)                     |

The Vought F7U Cutlass was of an unusual design for its time. It was the last of Vought's Rex Biesel-designed aircraft and was not a successful model due to handling problems.



|                      |                                   |
|----------------------|-----------------------------------|
| Plane                | Vought OS2U-3 Kingfisher          |
| Year of Introduction | 1938                              |
| Type                 | Catapult-Launched Floatplane      |
| Engine               | Pratt & Whitney R-985-AN-2 Radial |
| Service Ceiling      | 13,000 ft (3,960 m)               |

The OS2U-3 Kingfisher was a variant of the Vought OS2U Kingfisher. Vought was not able to keep up with demand, so a number of military manufacturers also began producing the company's aircraft.



|                      |   |
|----------------------|---|
| Plane                | Vought XTBU-1 Sea Wolf                      |
| Year of Introduction | 1944  |
| Type                 | Naval Torpedo Bomber                        |
| Engine               | Pratt & Whitney R-2800-6 Double Wasp Radial |
| Service Ceiling      | 27,200 ft (8,290 m)                         |

The Vought-designed XTBU-1 Sea Wolf of 1939 was later released in a variant that became the Consolidated TBV Sea Wolf, which was introduced only two weeks after the Japanese attack on Pearl Harbor.

|                      |                                    |
|----------------------|------------------------------------|
| Plane                | Chance Vought DF-8F Crusader       |
| Year of Introduction | 1957                               |
| Type                 | Supersonic Carrier-Based Aircraft  |
| Engine               | Pratt & Whitney J57-P-20A Turbojet |
| Service Ceiling      | 58,000 ft (17,700 m)               |

The single-engined Vought DF-F8 Crusader was designed for both the US Marine Corps and the Navy as a replacement for the Vought F7U Cutlass. It was the last US produced fighter equipped with guns as its main weapon.



|                      |                                    |
|----------------------|------------------------------------|
| Plane                | Vought F-8J Crusader               |
| Year of Introduction | After 1955                         |
| Type                 | Photo Reconnaissance Aircraft      |
| Engine               | Pratt & Whitney J57-P-20A Turbojet |
| Service Ceiling      | 58,000 ft (17,700 m)               |

The Vought F-8J Crusader was a photo reconnaissance variant of the Vought F-8 Crusader. A total of 136 models were built, and the aircraft was equipped with AN/APQ-124 radar.



|                      |                                    |
|----------------------|------------------------------------|
| Plane                | Vought F-8E Crusader               |
| Year of Introduction | After 1955                         |
| Type                 | Fighter Aircraft                   |
| Engine               | Pratt & Whitney J57-P-20A Turbojet |
| Service Ceiling      | 58,000 ft (17,700 m)               |

The Vought F-8E (FN) was designed for the French Navy, and was used as an air superiority fighter. Only 42 models were produced, and each was equipped with advanced radar and a greatly enhanced wing-lift function.



# CHENGDU - CHILTON - CONVAIR

The Chengdu Aerospace Corporation is a subsidiary of the Aviation Industry Corporation of China. The company designs and manufactures aircraft parts and combat aircraft. Chengdu began life as a state-owned aircraft manufacturer for China's military. Current models include the Chengdu J-10 and the JF-17 Thunder. Chilton Aircraft was established in 1937 as a British aircraft manufacturer. Initial models included the Chilton D.W.1., which was a sporting monoplane powered by a Carden Ford 32 hp engine. Between 1937 and 1939, Chilton released four models, and later racing developments were halted by the outbreak of World War II. Convair was a USA based aircraft manufacturer that eventually expanded into the development of spacecraft and rockets. Established in 1943, Convair was so named due to its provenance as the merged Vultee Aircraft and Consolidated Aircraft companies. Models included the Convair B-36 and B-58 bombers, the F-106 Delta Dart, the F-102 Delta Dagger, and the 880 and 990 jet airliners. The company then branched out into space exploration with the design of the Atlas Rocket. In 1994, Convair was owned by General Dynamics and was sold two years later.



|                      |                  |
|----------------------|------------------|
| Plane                | Chilton D.W.1A   |
| Year of Introduction | 1939             |
| Type                 | Sport Monoplane  |
| Engine               | 4-cyl Train 4T   |
| Service Ceiling      | Data Unavailable |

Only four Chilton D.W.1 models were produced, with the final D.W.1A aircraft powered by a French Train 4T engine, rather than the original model's four-cylinder Carden Ford engine.



|                      |   |
|----------------------|---|
| Plane                | Chengdu J-10a                             |
| Year of Introduction | 2005                                      |
| Type                 | Multi-Role Fighter Aircraft               |
| Engine               | Saturn-Lyulka AL-31FN and WS-10A Turbofan |
| Service Ceiling      | 59,055 ft (18,000 m)                      |

The Chengdu J-10 was designed as a lightweight fighter aircraft capable of filling a number of military roles. It was an exceptional all-weather aircraft known by NATO as the Firebird.



|                      |   |
|----------------------|---|
| Plane                | Convair 990 Coronado                    |
| Year of Introduction | 1961                                    |
| Type                 | Narrow Body Jet Airliner                |
| Engine               | General Electric CJ805-23B Turbofan x 4 |
| Service Ceiling      | 41,000 ft (12,500 m)                    |

The Convair 990 Coronado was a stretched variant of the Convair 880. Passenger capacity increased to a maximum of 121, as opposed to 110 in the 880. The airliner was faster than the Douglas DC-8 and Boeing 707, but it carried far fewer passengers.



|                      |                   |
|----------------------|-------------------|
| Plane                | Chilton D.W.1     |
| Year of Introduction | 1937              |
| Type                 | Sport Monoplane   |
| Engine               | 4-cyl Carden-Ford |
| Service Ceiling      | Data Unavailable  |

All four Chilton D.W.1 models were racing monoplanes developed in the last of the inter-war years. All four models survived the conflict and began racing again after the war. The models were designed by two ex-students of the de Havilland Technical School.



|                      |   |
|----------------------|---|
| Plane                | Convair 880                             |
| Year of Introduction | 1960                                    |
| Type                 | Narrow Body Jet Airliner                |
| Engine               | General Electric CJ-805-3B Turbojet x 4 |
| Service Ceiling      | 41,000 ft (12,500 m)                    |

The Convair 880 was produced after Convair was acquired by General Dynamics. It was designed specifically to compete as a faster and smaller airliner against the Douglas DC-8 and the Boeing 707.

|                      |                                |
|----------------------|--------------------------------|
| Plane                | Chengdu PAC JF-17 Thunder      |
| Year of Introduction | 2007                           |
| Type                 | Multi-Role Fighter Aircraft    |
| Engine               | Klimov RD-93 and Guizhou WS-13 |
| Service Ceiling      | 55,500 ft (16,920 m)           |

The JF-17 was designed and built in cooperation with the Pakistan Air Force, and was known in China as the CAC FC-1 Xiaolong. It is capable of undertaking aerial reconnaissance, interception and attack duties.



|                      |                                  |
|----------------------|----------------------------------|
| Plane                | Convair CV-580                   |
| Year of Introduction | 1950                             |
| Type                 | Passenger Airliner               |
| Engine               | Allison 501 D13D/H Turboprop x 2 |
| Service Ceiling      | Data Unavailable                 |

The Convair CV-580 was a later development of the Convair CV-240. Initially designed to compete with the Douglas DC-3, the CV-580 variant was in service with American, North Central and Frontier Airlines for a number of years.



|                      |                           |
|----------------------|---------------------------|
| Plane                | Chengdu F-7               |
| Year of Introduction | 1965 to 2013              |
| Type                 | Interceptor Aircraft      |
| Engine               | Liyang Wopen-13F Turbojet |
| Service Ceiling      | 17,500 m (57,420 ft)      |

The Chengdu J-7 was known by the NATO code of Fishbed. It was a license built Soviet MiG-21 and spent most of its working life as an interceptor in a number of air forces. The J-7 was later re-developed to become the JF-17 Thunder.



# CONSOLIDATED - COMCO IKARUS - COMPER

The Consolidated Aircraft Corporation was established in 1923 in Buffalo, USA. The company's founder, Reuben H. Fleet, purchased the Dayton-Wright Company's plans and merged them with the assets of the defunct Gallaudet Aircraft Company. Consolidated was renowned for its PBY Catalina and other flying boats from the 1920s, as well as the B-24 Liberator heavy bomber, which served in Europe and the Pacific during World War II. Germany's Comco Ikarus began life as a hang-glider manufacturer during the 1970s. The Aidlingen based company was established by Horst Heid and Rolf Lieb, moving into the design of ultralight aircraft in 1982 with the release of the Ikarus Sherpa. Today, Comco Ikarus also designs and manufactures ballistic parachutes alongside its popular ultralight models. The Comper Aircraft Company was established in 1929 in Cheshire, England by Nicholas Comper, a former member of the RAF. Along with his brother, a former RAF flight lieutenant, and the Hooton Park Aerodrome's owner, the company designed and released the Comper Swift sporting monoplane prototype in the early 1930s. The model was followed by the Comper Mouse, Streak and Kite models before closing due to the effects of the Great Depression.



|                      |                         |
|----------------------|-------------------------|
| Plane                | Consolidated N2Y        |
| Year of Introduction | 1928                    |
| Type                 | Trainer Biplane         |
| Engine               | 5-cyl Kinner K-5 Radial |
| Service Ceiling      | 12,200 ft (3,719 m)     |

The Consolidated N2Y was a variant of the Consolidated Fleet Model 1. Many variants were used as trainers throughout the 1920s and 1930s, and the N2Y was a naval trainer equipped with trapeze hooks for handling airships.



|                      |                            |
|----------------------|----------------------------|
| Plane                | Consolidated Fleet Model 1 |
| Year of Introduction | 1926                       |
| Type                 | Trainer Biplane            |
| Engine               | 5-cyl Kinner K-5 Radial    |
| Service Ceiling      | 12,200 ft (3,719 m)        |

The Fleet Model 1 was so named after Consolidated designer Reuben Fleet. More than 300 units were produced in the Model 1's first year of production.



|                      |                    |
|----------------------|--------------------|
| Plane                | Comper Swift       |
| Year of Introduction | 1932               |
| Type                 | Sport Aircraft     |
| Engine               | ABC Scorpion       |
| Service Ceiling      | 22,000 ft (6705 m) |

The Comper Swift was designed on the back of the company founder's personal success in designing sport aircraft for the Cranwell Light Aeroplane Club. The first Swift prototype took to the skies in 1930, and subsequent models were powered by Salmson and Pobjoy engines.



|                      |                    |
|----------------------|--------------------|
| Plane                | Ikarus C42         |
| Year of Introduction | 1996               |
| Type                 | Microlight         |
| Engine               | 4-cyl Rotax 912ULS |
| Service Ceiling      | Data Unavailable   |

Comco Ikarus designed the Ikarus C42 as a personal or training aircraft. The model is equipped with either a Rotax 912 or 912S engine, both of which produce low noise emissions.



|                      |   |
|----------------------|---|
| Plane                | Consolidated PBV-5A Catalina            |
| Year of Introduction | 1936                                    |
| Type                 | Flying Boat                             |
| Engine               | Pratt & Whitney R-1830-92 Twin Wasp x 2 |
| Service Ceiling      | Data Unavailable                        |

Known also as the Canso, the PBV 5A Catalina was one of the most popularly used flying boats during World War II. The aircraft was used as a bomber, convoy escort, anti-submarine and cargo aircraft, and continues in service today in an aerial firefighting role.



|                      |  |
|----------------------|--|
| Plane                | Consolidated B-24 Liberator                  |
| Year of Introduction | 1941   |
| Type                 | Heavy Bomber                                 |
| Engine               | Pratt & Whitney R-1830-35 and -41 Radial x 4 |
| Service Ceiling      | 28,000 ft (8,500 m)                          |

Known within Consolidated as the Model 32, the B-24 Liberator was designed as a long range bomber capable of carrying heavy payloads. It was produced in high numbers during World War II.



|                      |                        |
|----------------------|------------------------|
| Plane                | Consolidated PT-3      |
| Year of Introduction | 1927                   |
| Type                 | Trainer                |
| Engine               | Wright R-790-AB Radial |
| Service Ceiling      | 14,000 ft (4,267 m)    |

The Consolidated PT-3 was a variant of the Model 2 trainer used in the USA. It was designed with a radial engine after the success of the NY-1 as a naval trainer. The model was eventually replaced by the Boeing PT-13 Stearman in 1937.



# CONSTRUCCIONES AERONÁUTICAS

In 1923, José Ortiz-Echagüe established Construcciones Aeronáuticas SA (CASA) in Spain. Initially, the company built Breguet aircraft under license at its Getafe plant, expanding in 1926 to build a second factory in Cadiz. The latter facility was where the German Dornier Do. J Wal seaplane was constructed for use by the Spanish Navy. During Spain's Civil War, CASA's Getafe plant was in Republican territory and manufactured the Russian Polikarpov I-15 biplane. A new factory was established in Seville following the war, and CASA produced Gotha and Bücker models. During World War II, the company also replicated Heinkel bombers equipped with Rolls-Royce engines, naming the models the CASA 211. Government investment in CASA ensued in the mid 1940s, and the company won a contract to maintain F-100 Super Sabres for the US Air Force in the late 1950s. In 1962, CASA began manufacturing Northrop F-5A fighter bombers under license, merging with Hispano Aviation in 1971. CASA was a founding Airbus Consortium member in 1972, and the company became part of the Eurofighter 2000 project four years later.



|                      |                      |
|----------------------|----------------------|
| Plane                | CASA 1.131E Jungmann |
| Year of Introduction | 1935                 |
| Type                 | Trainer Biplane      |
| Engine               | 4-cyl Hirth HM 504   |
| Service Ceiling      | 13,300 ft (4,050 m)  |

The CASA 1.131E Jungmann was a Spanish built version of the Bücker Bü 131 Jungmann. The aircraft was a basic trainer flown during the inter-war years.



|                      |  |
|----------------------|--|
| Plane                | CASA C-101 Aviojet                           |
| Year of Introduction | 1980   |
| Type                 | Advanced Jet Trainer / Light Attack Aircraft |
| Engine               | Garrett TFE731-2-2J                          |
| Service Ceiling      | 41,000 ft (12,500 m)                         |

The single jet engined CASA C-101 Aviojet was first released in 1980 and remains in service today with the Spanish Air Force. Its design was a result of collaboration between CASA, Northrop and MBB in Germany.



|                      |   |
|----------------------|---|
| Plane                | CASA C-212-200 Aviocar                            |
| Year of Introduction | 1974  |
| Type                 | Transport Aircraft                                |
| Engine               | Garrett AiResearch TPE-331-10R-513C Turboprop x 2 |
| Service Ceiling      | 26,000 ft (7,925 m)                               |

The turboprop-engined CASA C-212-200 was a development of CASA's C-212 range of transport aircraft. Model variants were in production until 2008, with later versions to follow.



|                      |   |
|----------------------|---|
| Plane                | EADS CASA C-295 Persuader                           |
| Year of Introduction | 2001  |
| Type                 | Military Transport Aircraft                         |
| Engine               | Pratt & Whitney Canada PW127G Hamilton Standard x 2 |
| Service Ceiling      | 30,000 ft ( 9,100 m)                                |

The C-295 Persuader began life as a development of the CASA/IPTN CN-235, which was a joint Indonesian-Spanish aircraft. By 2016, the model was enhanced with in-flight refuelling enhancements.



|                      |                              |
|----------------------|------------------------------|
| Plane                | CASA C-101 Aviojet           |
| Year of Introduction | 1980                         |
| Type                 | Advanced Jet Trainer         |
| Engine               | Garrett TFE731-2-2J Turbofan |
| Service Ceiling      | 41,000 ft (12,500 m)         |

The CASA C-101 Aviojet was designed as a replacement for the Hispano Saeta, which was part of CASA's complement following the merger of the two companies in 1971.



|                      |                              |
|----------------------|------------------------------|
| Plane                | CASA/IPTN CN-235             |
| Year of Introduction | 1988                         |
| Type                 | Transport Aircraft           |
| Engine               | General Electric CT7-9C3 x 2 |
| Service Ceiling      | 25,000 ft (7,620 m)          |

The CASA/IPTN CN-235 was jointly developed between Spain and Indonesia. The aircraft's roles included surveillance, maritime patrol and air transport, with Turkey one of its greatest users.



|                      |   |
|----------------------|---|
| Plane                | EADS CASA C-295W  |
| Year of Introduction | 2001  |
| Type                 | Military Transport Aircraft                               |
| Engine               | Pratt & Whitney Canada PW127G Hamilton Standard 586-F x 2 |
| Service Ceiling      | 30,000 ft (9,100 m)                                       |

Spain's Airbus Defence and Space currently manufactures the EADS CASA C-295 aircraft in CASA's Seville facility. It is a stretched version of the earlier CASA/IPTN CN-235 of the late 1980s.

|                      |                                      |
|----------------------|--------------------------------------|
| Plane                | CASA C-212-100 Aviocar               |
| Year of Introduction | 1974                                 |
| Type                 | Transport Aircraft                   |
| Engine               | Garrett AiResearch TPE-331-10R-513C  |
| Service Ceiling      | Turboprop x 2<br>26,000 ft (7,925 m) |

The C-212-100 Aviocar was designed as part of the C-212 line of transport aircraft. The model is currently built under license in Indonesia in its latest variant - the C-212-400.



# CONSTRUCCIONES AERONÁUTICAS - CULVER

## - CURTISS WRIGHT - DASSAULT

In 1999, CASA became a subsidiary of the European Aeronautic Defence and Space Company (EADS) and operated under the EADS/CASA umbrella. In 2009, the company became part of Airbus Military. The Culver Aircraft Company was originally known as the Dart Aircraft Corporation, which purchased the rights to the Lambert Aircraft Corporation's Monosport G aircraft in 1939 and subsequently changed its name. Culver moved to Wichita, Kansas in 1941 and built the Culver Model V and the later XPQ-15 Drone as part of Beechcraft. In 1929, Wright Aeronautical and the Curtiss Aeroplane & Motor Company merged to form the Curtiss-Wright Corporation. During World War II, the company produced numerous military aircraft for the USA, later moving into the design and manufacture of aircraft components. Famous Curtiss-Wright models include the P-40 Kittyhawk (AKA Tomahawk & Warhawk), the C-46 Commando and the SB2C Helldiver. France's Dassault Aviation was established in 1929 by Marcel Bloch, surviving the Great Depression to thrive throughout the 20th century. Today, Dassault employs nearly 12,000 people and specialises in spacecraft design, aeronautics, and defence systems.



|                      |                            |
|----------------------|----------------------------|
| Plane                | CURTISS JN-4               |
| Year of Introduction | 1915                       |
| Type                 | Trainer / General Aircraft |
| Engine               | Curtiss OX-5               |
| Service Ceiling      | 6,500 ft (2,000 m)         |

The Curtiss JN-4 was known as the Curtiss Jenny and was an early Curtiss Aeroplane Company model. Originally designed as a trainer, the model later became a popular civil aviation aircraft.



|                      |                  |
|----------------------|------------------|
| Plane                | Curtiss R3C-2    |
| Year of Introduction | 1925             |
| Type                 | Racing Aircraft  |
| Engine               | Curtiss V-1400   |
| Service Ceiling      | Data Unavailable |

The Curtiss R3C was a single-seat biplane designed to compete in the Schneider Trophy. Jimmy Doolittle (of Doolittle's Raiders fame) raced the model in 1925 and set a new world speed record.



|                      |                                  |
|----------------------|----------------------------------|
| Plane                | Curtiss P-40F Kittyhawk          |
| Year of Introduction | 1938                             |
| Type                 | Fighter / Ground Attack Aircraft |
| Engine               | V-12 Allison V-1710-39           |
| Service Ceiling      | 29,000 ft (8,800 m)              |

The Curtiss P-40 was a development of the P-36 Hawk, with a number of variants released during World War II. Early models were named Warhawk, with later variants known as Tomahawk until the P-40E arrived. The Kittyhawk name then applied to subsequent models.



|                      |                     |
|----------------------|---------------------|
| Plane                | Curtiss Robin       |
| Year of Introduction | 1928                |
| Type                 | High Wing Monoplane |
| Engine               | 8-cyl Curtiss OX-5  |
| Service Ceiling      | 10,200 ft (3,109 m) |

The Curtiss Robin was released in 1928 and powered by a Curtiss OX-5 engine. A later C-1 variant was powered by a Curtiss Challenger engine, and the J-1 by a Wright J-6 Whirlwind engine.



|                      |                           |
|----------------------|---------------------------|
| Plane                | Dassault Rafale           |
| Year of Introduction | 2001                      |
| Type                 | Multi-Role Fighter        |
| Engine               | Snecma M88-2 Turbofan x 2 |
| Service Ceiling      | 50,000 ft (15,235 m)      |

The Dassault Rafale was designed for a number of military roles, including aerial reconnaissance, air supremacy, strike, ground support, interdiction and nuclear deterrence.

|                      |                    |
|----------------------|--------------------|
| Plane                | Culver Dart GC     |
| Year of Introduction | 1939               |
| Type                 | Light Monoplane    |
| Engine               | Continental O-200  |
| Service Ceiling      | 16,000 ft (4875 m) |

Originally designed as the Monosport G for the Lambert Aircraft Corporation, and Culver Dart GC came into being when the Culver Aircraft Company was established in 1939.



|                      |                                   |
|----------------------|-----------------------------------|
| Plane                | Curtiss P-40B Tomahawk            |
| Year of Introduction | 1941                              |
| Type                 | Fighter / Reconnaissance Aircraft |
| Engine               | Allison V-1710-33                 |
| Service Ceiling      | 32,400 ft (9,875 m)               |

Known colloquially as the 'Longnose' the P-40B Tomahawk was the second variant of the Curtiss P-40B. It served in Britain, North Africa, Syria, China, the USA and on the Russian Eastern Front, before, during and after World War II.





# DASSAULT AVIATION

Marcel Bloch first established the Société des Avions Marcel Bloch in 1929. During World War II, Bloch was imprisoned by the occupying forces and was later imprisoned at Buchenwald until liberation in 1945. Changing his surname to Dassault, as well as the name of his company, Bloch resumed aircraft design and manufacture and established an electronics division in 1954 for the purpose of designing airborne radar. Over the ensuing two decades, Dassault developed the Dassault Mirage and the Mystère Falcon, as well as acquiring Brequet Aviation and then renaming the company Avions Marcel Dassault-Brequet Aviation. Dassault created Dassault Systèmes in 1981 and marketed its CATIA design program. A system of complex mergers and acquisition saw the French government take a 20 percent share in Dassault before transferring it to Aérospatiale in 1998. Two years later, Aérospatiale merged with several other European manufacturers to form EADS, which would later become the Airbus Group. Dassault went on to acquire Atlantic Aviation in the same year. Today, Dassault remains the world's leading aeronautical IT specialist, and takes aircraft designs from the drawing board and integrates them with electronic design platforms, 3D and virtual technologies.



|                      |                        |
|----------------------|------------------------|
| Plane                | Dassault Mirage 2000   |
| Year of Introduction | 1982                   |
| Type                 | Jet Fighter            |
| Engine               | SNECMA M53-P2 Turbofan |
| Service Ceiling      | 59,000 ft (17,060 m)   |

One of the world's most successful jet fighters, the Dassault Mirage 2000 was designed late in the 1970s as an upgrade of the Mirage III. The aircraft's role was a varied one, and over 600 were built to serve in the air forces of more than eight nations.



|                      |  |
|----------------------|--|
| Plane                | Dassault Falcon 20F                      |
| Year of Introduction | 1965                                     |
| Type                 | Business Jet                             |
| Engine               | General Electric CF700-2D-2 Turbofan x 2 |
| Service Ceiling      | 42,000 ft (12,800 m)                     |

The Dassault Falcon 20F was a variant of the Dassault Falcon 20. Also known as the Mystère Falcon 20F, the aircraft was originally in development from the mid 1960s.



|                      |                          |
|----------------------|--------------------------|
| Plane                | Dassault Falcon 50       |
| Year of Introduction | 1976                     |
| Type                 | Long Range Corporate Jet |
| Engine               | Honeywell TFE731-40 x 3  |
| Service Ceiling      | 49,000 ft (14,936 m)     |

The design of the Dassault Falcon 50's fuselage was similar to that of the earlier Falcon 20 Twinjet, but the similarity stopped there. The aircraft featured an advanced wing design and was built for long range flight.



|                      |                                      |
|----------------------|--------------------------------------|
| Plane                | Dassault Falcon 900LX                |
| Year of Introduction | 1984                                 |
| Type                 | Corporate Aircraft                   |
| Engine               | Honeywell TFE731-5BR-1C Turbofan x 3 |
| Service Ceiling      | 51,000 ft (15,500 m)                 |

The Falcon 900LX was a development of the Dassault Falcon 900. Known as a trijet due to its three-engine configuration, the aircraft featured a central 'S-Duct' engine. The 900LX's range was an improved 8,800 km (5,468 m / 4,751 nautical m).



|                      |  |
|----------------------|--|
| Plane                | Dassault / Dornier Alpha Jet               |
| Year of Introduction | 1977                                       |
| Type                 | Light Attack Jet / Advanced Jet Trainer    |
| Engine               | SNECMA Turbomeca Larzac O4-C5 Turbofan x 2 |
| Service Ceiling      | 48,000 ft (14,630 m)                       |

The Alpha Jet was designed as part of a competition to produce an advanced jet trainer / attack aircraft for both the German and French Air Forces. The winning design was created by Dassault, Dornier Flugzeugwerke and Breguet Aviation.



|                      |                          |
|----------------------|--------------------------|
| Plane                | Dassault Falcon 2000     |
| Year of Introduction | 1994                     |
| Type                 | Business Jet             |
| Engine               | CFE738-1-1B Turbofan x 2 |
| Service Ceiling      | 47,000 ft (15,500 m)     |

The Dassault Falcon 2000 was designed as a compact version of the Falcon 900 Trijet. The original release was powered by both General Electric and Allied Signal engines.

|                      |  |
|----------------------|--|
| Plane                | Dassault Falcon 2000EX                     |
| Year of Introduction | 2003                                       |
| Type                 | Business Jet                               |
| Engine               | Pratt & Whitney Canada PW308C Turbofan x 2 |
| Service Ceiling      | 47,000 ft (15,500 m)                       |

The Dassault Falcon 2000 was first released in 1993. It was designed as a more compact Dassault Falcon 900 Trijet and was re-engineered as the Falcon 2000 EX in 2003.



# DE HAVILLAND

Britain's de Havilland Aircraft Company Limited was established by Geoffrey de Havilland in 1920. De Havilland worked as Airco's chief designer and technical director before the company was purchased and closed down by BSA. De Havilland leased nearby premises and created his own company. The Moth was released in 1925, three years before de Havilland became a public company and developed its own Gipsy engine. A series of aircraft powered by the engine included the Gipsy, Tiger and Hornet Moths. In the 1930s, the Dragon, Dragon Rapide and Comet models were released, followed by the famous Mosquito, which served as a multi-role fighter/bomber during World War II. The disastrous Comet release in the 1950s saw the company acquired by Hawker Siddeley in 1960 to become the company's de Havilland Division. The innovative de Havilland company is no longer a designer and manufacturer in its own right, but its history includes some of the most famous and successful aircraft to grace the skies. Today, the name of de Havilland belongs to BAe Systems, and it remains a large part of the inspiration for the entity's ongoing research and development.



|                      |                                |
|----------------------|--------------------------------|
| Plane                | De Havilland DH.60G Gipsy Moth |
| Year of Introduction | After 1925                     |
| Type                 | Training Biplane               |
| Engine               | 4-cyl de Havilland Gipsy I     |
| Service Ceiling      | 14,500 ft (4,420 m)            |

The de Havilland DH.60 G Gipsy Moth was a variant of the 1925 D.60 Moth. The latter was developed out of the company's large DH.51 biplane.



|                      |                                 |
|----------------------|---------------------------------|
| Plane                | De Havilland DH.60X Hermes Moth |
| Year of Introduction | After 1925                      |
| Type                 | General Biplane                 |
| Engine               | 4-cyl de Havilland Gipsy I      |
| Service Ceiling      | 14,500 ft (4,420 m)             |

The de Havilland DH.60X Hermes Moth was designated 'X' due to the model's optional X-braced undercarriage. The development became standard from the release of the DH.60M



|                      |                               |
|----------------------|-------------------------------|
| Plane                | De Havilland DH.80A Puss Moth |
| Year of Introduction | 1930                          |
| Type                 | Monoplane - Three Seats       |
| Engine               | 4-cyl de Havilland Gipsy III  |
| Service Ceiling      | 17,500 ft (3,335 m)           |

The Puss Moth was the precursor to the Leopard Moth and was in production from 1929 until 1933. Its speed placed it at the performance forefront of aircraft at the time.



|                      |                                  |
|----------------------|----------------------------------|
| Plane                | De Havilland DH.82A Tiger Moth   |
| Year of Introduction | 1932                             |
| Type                 | Trainer Biplane                  |
| Engine               | 4-cyl de Havilland Gipsy Major I |
| Service Ceiling      | 13,600 ft (4,145 m)              |

Geoffrey de Havilland was responsible for the design of the Tiger Moth, which became one of the RAF's mainstay trainers. During its lifetime, the Tiger Moth was also used in maritime surveillance, light bombing and anti-invasion patrolling



|                      |   |
|----------------------|---|
| Plane                | Thruxton (de Havilland) DH.82X Jackaroo |
| Year of Introduction | 1957                                    |
| Type                 | General Biplane - Four Seat             |
| Engine               | 4-cyl de Havilland Gipsy Major          |
| Service Ceiling      | 14,500 ft (4,420 m)                     |

The Thruxton Jackaroo was designed during the 1950s as a converted de Havilland Tiger Moth. A total of 18 Tiger Moths were converted to become Jackaroos.



|                      |                             |
|----------------------|-----------------------------|
| Plane                | De Havilland DH.83 Fox Moth |
| Year of Introduction | 1932                        |
| Type                 | Passenger Biplane           |
| Engine               | De Havilland Gipsy III      |
| Service Ceiling      | 12,700 ft (3,870 m)         |

The D.83 Fox Moth was a passenger aircraft released in 1932, and was designed as a low cost means of air transport. Its engine, rudder, tailplane and fin were identical to those in the D.82 Tiger Moth.



|                      |                                |
|----------------------|--------------------------------|
| Plane                | De Havilland DH.60 Cirrus Moth |
| Year of Introduction | 1925                           |
| Type                 | Prototype Biplane              |
| Engine               | ADC Cirrus                     |
| Service Ceiling      | 14,500 ft (4,420 m)            |

The DH.60 Cirrus Moth was began life as a prototype biplane for de Havilland. There were eight pre-production Cirrus Moths built before it went into production. A further 31 production models were released.



# DE HAVILLAND CANADA - DART

In 1928, Britain's de Havilland Aircraft Company laid down plans to build a training aircraft for Canadian pilots, and opened a new manufacturing facility in Ontario, Canada as de Havilland Canada. In the pre-World War II years, the DH.82 Tiger Moth was the trainer of choice, and nearly 2,000 were built in Canada. The DH.83 Fox Moth followed, but it was the Tiger Moth that became the World War II trainer of choice. Much of the training for all of Britain's Commonwealth forces was undertaken in Canada, as the country was not located within the theatre of the conflict. During the war, de Havilland Canada also produced the Mosquito in large numbers, with many delivered to Great Britain. Following the war, the company began designing aircraft more suited to the Canadian climate and topography, and the greatest of those was the DHC-1 Chipmunk. Later models included the Beaver, Otter, Caribou and Buffalo, with the Twin Otter and the Dash 7 and 8 the Canadian company's crowning models. Dart Aircraft began life in 1935 as Zander & Weyl by German by pilot and technician Alfred Weyl. The company name was later changed to Dart Aircraft Ltd., and the main model was the Dart Kitten.



|                      |                                  |
|----------------------|----------------------------------|
| Plane                | De Havilland Canada Chipmunk 22A |
| Year of Introduction | After 1946                       |
| Type                 | Trainer Monoplane                |
| Engine               | De Havilland Gipsy Major 1C      |
| Service Ceiling      | 15,800 ft (5200 m)               |

The Chipmunk was de Havilland Canada's first truly Canadian aircraft, and was designed to replace the Tiger Moth Biplane. The all-metal aircraft became one of the company's longest lived models.



|                      |                           |
|----------------------|---------------------------|
| Plane                | Dart Kitten               |
| Year of Introduction | 1937                      |
| Type                 | Ultralight Monoplane      |
| Engine               | 2-cyl Aeronca-J.A.P. J-99 |
| Service Ceiling      | 19,700 ft (6,004 m)       |

Alfred Weyl designed the Dart Kitten in 1937 and released it in the following year. Only four units were produced, and each was powered by a different engine.



|                      |                                      |
|----------------------|--------------------------------------|
| Plane                | De Havilland Canada DHC-6 Twin Otter |
| Year of Introduction | 1966                                 |
| Type                 | Passenger Airliner - 19 Seat         |
| Engine               | Pratt & Whitney PT6A-27 x 2          |
| Service Ceiling      | 25,000 ft (7,620 m)                  |

The DHC-6 Twin Otter entered the design phase in 1964 as a replacement for the DHC-3 Otter. Moving from a single engine to a twin configuration meant little change to the name. The aircraft was extremely popular in regional and remote locations.

|                      |   |
|----------------------|---|
| Plane                | De Havilland Canada DHC-1 Chipmunk T.10 |
| Year of Introduction | 1946                                    |
| Type                 | Trainer - Two Seat                      |
| Engine               | de Havilland Gipsy Major 8              |
| Service Ceiling      | 15,800 ft (5200 m)                      |

The T.10 variant of the DHC-1 Chipmunk was one of a line that continues in production today. The T.10 was also known as the Mk 10, and was designed for use by the RAF. The original Chimpunk was powered by the de Havilland Gipsy Major 1C engine.

|                      |  |
|----------------------|--|
| Plane                | De Havilland Canada DHC-6-300 Twin Otter |
| Year of Introduction | 1966                                     |
| Type                 | Passenger Utility Aircraft               |
| Engine               | Pratt & Whitney PT6A-27 x 2              |
| Service Ceiling      | 25,000 ft (7,620 m)                      |

The DHC-6 Twin Otter was one of the most successful aircraft of the 1960s and 1970s. It became a widely used passenger, cargo and Medevac aircraft, as well as a popular commercial skydiving model.



|                      |                                  |
|----------------------|----------------------------------|
| Plane                | De Havilland Canada DHC-8-400    |
| Year of Introduction | 1984                             |
| Type                 | Medium Range Airliner            |
| Engine               | Pratt & Whitney Canada PW100 x 2 |
| Service Ceiling      | 25,000 ft (7,620 m)              |

The DHC-8-400 later became the Bombardier Dash 8. The model was an upgraded development of DHC's Dash 7, and production only ceased in 2005.



|                      |  |
|----------------------|--|
| Plane                | De Havilland Canada EO-5C Dash 7             |
| Year of Introduction | 1975   |
| Type                 | Regional Passenger Airliner                  |
| Engine               | Pratt & Whitney Canada PT6A-50 Turboprop x 4 |
| Service Ceiling      | 21,000 ft (6,400 m)                          |

Known generally as the Dash 7, the EO-5C Dash 7 had excellent short take-off and landing dynamics. It was in production until 1988, when Boeing purchased DHC.




|                      |                                  |
|----------------------|----------------------------------|
| Plane                | De Havilland Canada Dash 8       |
| Year of Introduction | 1984                             |
| Type                 | Medium Range Airliner            |
| Engine               | Pratt & Whitney Canada PW100 x 2 |
| Service Ceiling      | 25,000 ft (7,620 m)              |

The DHC Dash 8 first went into service with NorOntair in 1984. The model's greatest strength lay in its ability to achieve short take-offs and landings. The largest model in the Dash series accommodates 78 passengers today.



# DAHER-SOCATA - DIAMOND

The earliest traces of DAHER-SOCATA can be found in the mid 19th century when Paul Daher acquired the Marseille based company owned by Alphonse Barban. Half a century later, Morane-Saulnier was established, and changed its name to SOCATA in 1966. The acronym was the abbreviated Societe de Construction d'Avions de Tourisme et d'Affaires, and Morane-Saulnier was next purchased by Sud Aviation. A series of further take-overs and mergers saw DAHER-SOCATA emerge late in the 20th century, and by 2015, the name became simply Daher. Diamond Aircraft Industries was established in 1981 as Hoffman Flugzeugbau in Austria. The company began manufacturing powered gliders and moved into ultralight aircraft in the early 1990s. In 1992, Hoffman decided to open a new manufacturing facility in Ontario, Canada, calling itself Dimona Aircraft until 1996, when Diamond Aircraft came into being. The first of the all-Canadian models arrived in 1995. In 2003, Diamond announced the Diamond-D Jet program, as well as plans to manufacture its popular DV-40A aircraft in China. A major employee lay-off in 2013 halted many plans, but the company began to recover with a year.



|                      |                           |
|----------------------|---------------------------|
| Plane                | Diamond DA20-C1           |
| Year of Introduction | Before 1998               |
| Type                 | Light Aircraft - Two Seat |
| Engine               | Continental IO-240        |
| Service Ceiling      | 13,120 ft (3,999 m)       |

The Diamond DA 20 was a line of aircraft produced by Diamond Aircraft Industries in Canada. It began life in Austria as the Diamond DV20 or the DA20 Katana.



|                      |                              |
|----------------------|------------------------------|
| Plane                | SOCATA TB-20 Trinidad        |
| Year of Introduction | 1975                         |
| Type                 | Light Single-Engine Aircraft |
| Engine               | 4-cyl Lycoming O-360-A1AD    |
| Service Ceiling      | 10,000 ft (3,048 m)          |

The SOCATA TB-20 Trinidad was released by DAHER-SOCATA in the mid 1970s. The aircraft was a four to five seat model and a constant speed propellor.



|                      |                               |
|----------------------|-------------------------------|
| Plane                | SOCATA TB-30 Epsilon          |
| Year of Introduction | 1983                          |
| Type                 | Light Military Trainer        |
| Engine               | 6-cyl Lycoming AEIO-540-L1B5D |
| Service Ceiling      | 23,000 ft (7,010 m)           |

The TB 30 Epsilon was produced when SOCATA was a division of Aérospatiale. Epsilons were use by the French and Portuguese armed forces, with the latter's aircraft assembled in Portugal.



|                      |                              |
|----------------------|------------------------------|
| Plane                | Diamond DA-40D               |
| Year of Introduction | 1997                         |
| Type                 | Single Engine Light Aircraft |
| Engine               | Thielert TAE 125-O1          |
| Service Ceiling      | 16,400 ft (5000 m)           |

The Diamond DA-40 was also known as the Diamond Star, and was produced in Austria. Constructed with composite materials, the model was a four-seat variant of the straight DA-20 model.



|                      |                              |
|----------------------|------------------------------|
| Plane                | SOCATA TB-9 Tampico          |
| Year of Introduction | After 1975                   |
| Type                 | Light Single-Engine Aircraft |
| Engine               | Lycoming O-320-D2A           |
| Service Ceiling      | 10,000 ft (3,048 m)          |

The TB-9 Tampico sported a larger fueslage than the original TB-9 model. Its performance figures were lower than that of associated models, due mainly to a heavier gross payload, which was deliberately created for passenger comfort.



|                      |                    |
|----------------------|--------------------|
| Plane                | SOCATA ST60 Rallye |
| Year of Introduction | 1969               |
| Type                 | Sport Aircraft     |
| Engine               | Lycoming IO-540-K  |
| Service Ceiling      | Data Unavailable   |

The SOCATA ST-60 Rallye was first introduced as the Morane Saulnier built MS.880 in the 1960s. It became the mainstay model for the newly formed SOCATA company until the SOCATA TB series replaced it in the 1980s.



# DESOUTTER - DORNIER

Desoutter was a British aircraft manufacturer based in Croydon, England. The company was established by Marcel Desoutter in 1928 and began manufacturing the Dutch Koolhoven F.K.41. Operating out of the Croydon Aerodrome, the company released its popular Mk.1 and Mk.11 models, which were used extensively throughout British flying clubs. The company closed its doors in 1932. Dornier Flugzeugwerke was established in 1914 in Friedrichshafen, Germany by Claude Dornier. Originally, the company went by the name of Dornier Metallbau, and commenced operations as Dornier Flugzeugwerke after acquiring Flugzeugbau Friedrichshafen. Dornier quickly became a popular in the 1920s and 1930s, and its aircraft were manufactured all over the world under license. During World War II, the company developed bombers, flying boats and other military aircraft for Germany. Dornier grew in the post-World War II years, and was eventually acquired by Daimler-Benz in 1985. In 1996, the company was then acquired by Fairchild Aircraft to create Fairchild Dornier. Other Dornier subsidiaries that emanated from the Daimler-Benz acquisition were spun off into a range of textile, medical and laser companies. Currently, the Dornier family owns the Dornier Seaplane Company.



|                      |                              |
|----------------------|------------------------------|
| Plane                | Desoutter I                  |
| Year of Introduction | 1930                         |
| Type                 | General Light Monoplane      |
| Engine               | 4-cyl de Havilland Gipsy III |
| Service Ceiling      | 17,000 ft (5,200 m)          |

The distinctive orange and black Desoutter I was the company's inaugural true Desoutter release. The model was used throughout British flying clubs as a trainer or pleasure aircraft.



|                      |                                      |
|----------------------|--------------------------------------|
| Plane                | Dornier Do 24                        |
| Year of Introduction | 1937                                 |
| Type                 | Flying Boat                          |
| Engine               | 9-cyl Bramo 323R-2 Fafnir Radial x 3 |
| Service Ceiling      | 26,670 ft (6,300 m)                  |

The Dornier Do 24 flying boat was designed for search and rescue duties, as well as maritime patrol during the inter-war years. The original requirement came from the Dutch Navy, which used the model extensively in the Dutch East Indies.



|                      |                                       |
|----------------------|---------------------------------------|
| Plane                | Dornier Do-228                        |
| Year of Introduction | 1982                                  |
| Type                 | STOL Utility Aircraft                 |
| Engine               | Garrett AiResearch TPE-331-5-252D x 2 |
| Service Ceiling      | 28,000 ft (8,500 m)                   |

The Dornier Do-228 was a short take-off and landing aircraft produced by Dornier and also under license in India and Germany. In 2009, the New Generation Dornier 228 went into production for a 2010 production date.

|                      |                        |
|----------------------|------------------------|
| Plane                | Dornier Do 27          |
| Year of Introduction | 1955                   |
| Type                 | STOL Utility Aircraft  |
| Engine               | 6-cyl Lycoming IO-540A |
| Service Ceiling      | 20,700 ft (6,300 m)    |

The Dornier Do 27 was first flown as a prototype aircraft in Spain. Most of the models were manufactured in Germany, with 50 Spanish produced models constructed under license by CASA.



|                      |                                     |
|----------------------|-------------------------------------|
| Plane                | Dornier Seastar                     |
| Year of Introduction | 1984                                |
| Type                 | Amphibious Aircraft                 |
| Engine               | Pratt & Whitney Canada PT6A-112 x 2 |
| Service Ceiling      | 28,000 ft (8,535 m)                 |

The Dornier Seastar was made from composite materials, and was designed by Germany's Claudius Dornier Jr. When Dornier Composite Aircraft and Claudius Dornier Aircraft (spin off subsidiaries after the Daimler-Benz take-over) were put on hold, the aircraft was also placed on hold.

|                      |                            |
|----------------------|----------------------------|
| Plane                | Dornier Do 28              |
| Year of Introduction | 1960                       |
| Type                 | STOL Aircraft              |
| Engine               | 6-cyl Lycoming IO-540A x 2 |
| Service Ceiling      | 20,700 ft (6,300 m)        |

The Dornier Do 28 superseded the Do 27 and was designed to operate at speed in high altitudes. The biggest change between the models was the introduction of the twin engine.

|                      |   |
|----------------------|---|
| Plane                | Dornier Do-328                              |
| Year of Introduction | 1993  |
| Type                 | Commuter Airliner                           |
| Engine               | Pratt & Whitney Canada PW119B Turboprop x 2 |
| Service Ceiling      | 31,140 ft (9,492 m)                         |

The Dornier Do-328 was produced before Dornier merged with Fairchild Aircraft. The ensuing models produced were Fairchild Dornier models, and included the Fairchild Dornier 328JET.





# DOUGLAS AIRCRAFT COMPANY

The Douglas Aircraft Company was a California based aircraft designer and manufacturer established by Donald Wills Douglas, Sr. in 1921. In 1923, the US Army used a modified Douglas DT aircraft to circumnavigate the world, naming the new model the Douglas DW. The company began manufacturing torpedo bombers for naval deployment, and then developed the aircraft for use as airmail and reconnaissance models. Douglas was most renowned for its DC or Douglas Commercial aircraft range, which gathered steam with the Douglas DC-3, or in the military version as the Douglas C-47 Skytrain. Soon, Douglas manufactured an enormous range of fighters, bombers, reconnaissance and experimental aircraft, and was part of the consortium that produced the B-17 Flying Fortress during World War II. Douglas became involved in research & development during the post war years, as well as the rise of the Douglas DC-8 and 9 airliners alongside military attack aircraft. Douglas merged with McDonnell Aircraft in 1967 to create McDonnell Douglas, and the entity then merged with Boeing 30 years later.



|                      |                           |
|----------------------|---------------------------|
| Plane                | Douglas AD Skyraider      |
| Year of Introduction | 1946                      |
| Type                 | Attack Aircraft           |
| Engine               | Wright R-3350-26WA Radial |
| Service Ceiling      | 28,500 ft (8,685 m)       |

The Douglas AD Skyraider was the original name for the model that became the Douglas A-1 Skyraider. Nicknamed the 'Spad', the model was unusually popular during the jet age.



|                      |                           |
|----------------------|---------------------------|
| Plane                | Douglas Dauntless Avenger |
| Year of Introduction | 1940                      |
| Type                 | Naval Scout / Dive Bomber |
| Engine               | Wright R-1820-60 Radial   |
| Service Ceiling      | 25,530 ft (7,780 m)       |

The Dauntless Avenger, or SBD, was manufactured between 1940 and 1944. It became the US Navy's primary carrier-launched scout aircraft and operated as a dive bomber during World War II.



|                      |                                       |
|----------------------|---------------------------------------|
| Plane                | Douglas A-26 Invader                  |
| Year of Introduction | 1942                                  |
| Type                 | Light Bomber / Ground Attack Aircraft |
| Engine               | Pratt & Whitney R-2800-27 Radial x 2  |
| Service Ceiling      | 22,000 ft (6,700 m)                   |

The Douglas A-26 Invader was later known as the B-26 after World War II. It was also in service during the Cold War and was capable of carrying heavy bomb payloads.



|                      |   |
|----------------------|---|
| Plane                | Dakota DC-3                                       |
| Year of Introduction | 1936  |
| Type                 | Military Transport                                |
| Engine               | 14-cyl Pratt & Whitney R-1830-51C3G Twin Wasp x 2 |
| Service Ceiling      | 23,200 ft (7,100 m)                               |

The Dakota DC-3 was the military variant of the Douglas DC-3 passenger airliner. Through the 1930s and 1940s, Douglas changed the face of air transport and continues as part of modern aviation today.



|                      |                                       |
|----------------------|---------------------------------------|
| Plane                | Douglas C-47 Skytrain                 |
| Year of Introduction | 1941                                  |
| Type                 | Military Transport                    |
| Engine               | 14-cyl Pratt & Whitney R-1830-90C x 2 |
| Service Ceiling      | 26,400 ft (8,045 m)                   |

The Douglas C-47 Skytrain was also known as the Dakota and was a development of the Douglas DC-3 passenger airliner. Used extensively throughout World War II, the aircraft continues in service today in an upgraded format.

|                      |                                       |
|----------------------|---------------------------------------|
| Plane                | Douglas C-53D Skytrooper              |
| Year of Introduction | 1941                                  |
| Type                 | Military Transport                    |
| Engine               | 14-cyl Pratt & Whitney R-1830-90C x 2 |
| Service Ceiling      | 26,400 ft (8,045 m)                   |

The Douglas C-53D Skytrooper was a variant of the Douglas C-47 Skytrain, which in turn was the military version of the DC-3. The C-53D Skytrooper was designed to transport troops, and it accommodated 18 seated passengers in rows of metal seats.



# ECLIPSE - EDGLEY - EDO - ETRICH

## ENGLISH ELECTRIC

The Elcipse Aviation Corporation was established in 1998 by Vern Raburn, a former Microsoft executive. One of Raburn's major investors was Bill Gates. The company produced the Eclipse 500 VLJ (Very Light Jet) and the single-engined Eclipse 400 jet. Edgley Aircraft Limited was founded by John Edgley in Wiltshire, Britain in 1974 and developed the unusual looking and 'bug-eyed' Optica aircraft. In 1925, the EDO Aircraft Corporation was established in the USA by Earl Dodge Osborn. The first product to emerge from the company's Long Island factory was the EDO float, which was made from aluminium rather than traditional wood. During World War II, EDO manufactured military aircraft. Etrich was originally established in Germany in the pre-World War I years. In 1914, the company was acquired by Branderburgische Flugzeugwerke and eventually became part of the larger Hansa-Brandenburg company. The English Electric Company Ltd. was established following the end of World War I, having manufactured munitions during the conflict, followed by railway locomotives, electric motors, diesel and steam engines in the ensuing years. Two of the company's greatest aircraft were the Canberra and the Lightning. English Electric merged with GEC in 1968.

|                      |                          |
|----------------------|--------------------------|
| Plane                | Rumpler Taube            |
| Year of Introduction | 1910                     |
| Type                 | Monoplane / Early Bomber |
| Engine               | 4-cyl Mercedes Typ E4F   |
| Service Ceiling      | 6,562 ft (2,000 m)       |

The Rumpler Taube was also known as the Etrich Taube. Built before World War I, it was a military aircraft that became the platform for the world's first aerial bomb.





|                      |                                     |
|----------------------|-------------------------------------|
| Plane                | Edgley EA-7 Optica                  |
| Year of Introduction | 1979                                |
| Type                 | Light Observation Aircraft          |
| Engine               | 6-cyl Textron Lycoming IO-540-V4A5D |
| Service Ceiling      | 14,000 ft (4,275 m)                 |

The Edgley EA-7 Optica was designed to operate as an observation aircraft at low speed. The aircraft's design phase began in 1974, and the model was intended to offer a cheap helicopter alternative.



|                      |                       |
|----------------------|-----------------------|
| Plane                | Edo XOSE-1            |
| Year of Introduction | 1946                  |
| Type                 | Multi-Role Floatplane |
| Engine               | Ranger V-770-8        |
| Service Ceiling      | 22,300 ft (6800 m)    |

The Edo XOSE-1 was a development of the Edo OSE. The model was a cantilever monoplane designed for compact storage aboard ships. It operated as an observation and anti-submarine aircraft.



|                      |                                   |
|----------------------|-----------------------------------|
| Plane                | Canberra PR.9                     |
| Year of Introduction | 1951                              |
| Type                 | Photo Reconnaissance Aircraft     |
| Engine               | Rolls-Royce Avon R.A.7 Mk.109 x 2 |
| Service Ceiling      | 48,000 ft (15,000 m)              |

The Canberra PR.9 was one of a number of Canberra variants, and was a development of the Canberra B(I).8. It was equipped with a hinged nose that allowed for egress of a navigator's ejection seat.



|                      |                               |
|----------------------|-------------------------------|
| Plane                | English Electric Canberra B.2 |
| Year of Introduction | 1951                          |
| Type                 | Medium Bomber                 |
| Engine               | Rolls-Royce Avon R.A.3 x 2    |
| Service Ceiling      | 48,000 ft (15,000 m)          |

The English Electric Canberra B.2 was a later variant of the first-generation Canberra. Crew capacity was increased with the addition of a bomb aimer, and the model was produced by a number of manufacturers, including Avro, Short Brothers and Handley Page.



|                      |                                  |
|----------------------|----------------------------------|
| Plane                | English Electric Lightning       |
| Year of Introduction | 1959                             |
| Type                 | Supersonic Fighter / Interceptor |
| Engine               | Rolls-Royce Avon 301R x 2        |
| Service Ceiling      | 54,000 ft (16,000 m)             |

The English Electric Lightning was designed as a supersonic fighter and interceptor aircraft. Following the company's merger into the British Aircraft Corporation, the aircraft was known as the BAC Lightning.



|                      |                                    |
|----------------------|------------------------------------|
| Plane                | Etrich Taube E.VIII Luft-Limousine |
| Year of Introduction | 1910                               |
| Type                 | Single Engine Monoplane            |
| Engine               | 60 hp Austro-Daimler               |
| Service Ceiling      | Data Unavailable                   |

The Luft-Limousine was the second Etrich aircraft produced. The model was equipped with a cabin enclosed by wire and celluloid. The model was used by Austria-Hungary during World War I.



# EMBRAER

Embraer S.A. is a Brazilian aircraft manufacturer. The company was first established in 1969 as a government owned corporation named Empresa Brasileira de Aeronáutica, and was more commonly known as Embraer. The inaugural Embraer model was the Embraer EMB 110 Bandeirante. Throughout the 1970s, Embraer's main models were military aircraft, which included the AT-26 Xavante and the EMB 312 Tucano. Domestic market sales also featured among the company's small civilian aircraft line, and included Piper aircraft built under license. In 1985, Embraer released its first small regional airliner, the EMB 120 Brasília, which was created for the export market. In 1994, Embraer was sold to private investors, and the company then began following a more aggressive sales stance that included expansion of the commercial aircraft line. Business and executive jets were released in the early 2000s, and as Embraer's product line grew, so did its success. Today, Embraer competes successfully against Airbus, Boeing and Bombardier, and manufacturing facilities are also located in Portugal and the USA.



|                      |   |
|----------------------|---|
| Plane                | Embraer A-29B Super Tucano                |
| Year of Introduction | 2003                                      |
| Type                 | Light Attack / Reconnaissance Jet         |
| Engine               | Pratt & Whitney Canada PT6A-68C Turboprop |
| Service Ceiling      | 35,000 ft (10,668 m)                      |

The A-29B Super Tucano was also known as the EMB 314 Super Tucano. It operated in numerous roles, including counter-insurgency, aerial reconnaissance, light attack, air support and training.



|                      |  |
|----------------------|--|
| Plane                | Embraer ERJ-175                          |
| Year of Introduction | 2004                                     |
| Type                 | Narrow-Body Jet Airliner                 |
| Engine               | General Electric GE CF34-8E Turbofan x 2 |
| Service Ceiling      | 41,000 ft (12,500 m)                     |

The Embraer ERJ-175 is part of the Embraer E-Jet line, which was first introduced in 1999. The aircraft has seating capacity for 80 and is considered a medium range airliner.



|                      |                            |
|----------------------|----------------------------|
| Plane                | Embraer ERJ-145            |
| Year of Introduction | 1997                       |
| Type                 | Regional Jet Airliner      |
| Engine               | Rolls-Royce AE 3007-A1 x 2 |
| Service Ceiling      | 37,000 ft (11,278 m)       |

The Embraer ERJ-145 is part of a model group that also includes the ERJ-135 and ERJ-140 passenger jets, as well as the R-99 and Legacy military jets. The aircraft is equipped with seating for 50 passengers.

|                      |                           |
|----------------------|---------------------------|
| Plane                | Embraer KC-390            |
| Year of Introduction | 2018                      |
| Type                 | Military Transport        |
| Engine               | IAE V2500-E5 Turbofan x 2 |
| Service Ceiling      | 36,000 ft (10,973 m)      |

The Embraer KC-390 was designed to transport up to 23 tons of military equipment, troops and vehicles, as well as being able to perform in-flight refuelling.



|                      |                                      |
|----------------------|--------------------------------------|
| Plane                | Embraer Phenom 100                   |
| Year of Introduction | 2007                                 |
| Type                 | Light Jet - Four Passengers          |
| Engine               | Pratt & Whitney Canada PW617F1-E x 2 |
| Service Ceiling      | 41,000 ft (12,497 m)                 |

The Embraer Phenom 100 is an Embraer EMB-500 model. Nearly 400 of the composite material-constructed Phenom 100s are in service today.

|                      |                             |
|----------------------|-----------------------------|
| Plane                | Embraer Legacy 600          |
| Year of Introduction | 2002                        |
| Type                 | Regional Airliner           |
| Engine               | Rolls-Royce AE 3007-A1E x 2 |
| Service Ceiling      | 41,000 ft (12,497 m)        |

The Embraer Legacy 600 is designed to carry up to 13 passengers in three separate partitioned sections of the aircraft. The model has the capacity for long range flying due to additional fuel tanks located behind its baggage compartment.



|                      |   |
|----------------------|---|
| Plane                | Embraer E195                              |
| Year of Introduction | 2001                                      |
| Type                 | Narrow Body Airliner                      |
| Engine               | General Electric GE CF34-10E Turbofan x 2 |
| Service Ceiling      | 41,000 ft (12,497 m)                      |

The Embraer E195 is a longer variant of the E175 airliner, equipped with a larger wing and a new GE engine. The model competes with Bombardier's CRJ-100 and other Boeing and Airbus models, and has a seating capacity of up to 124 passengers.



# EMBRAER - EUROFIGHTER - EUROPA

Embraer competes successfully today against Boeing, Bombardier and Airbus for passenger airliner supremacy. The majority of each company's models are virtually identical in intended role, passenger capacity and range, and the competition creates a healthy environment in which airlines can purchase models most suited to their needs. The Eurofighter Typhoon is the result of a design undertaken by a consortium set up in 1983 by France, Germany, Great Britain, Italy and Spain. France departed to develop its own Dassault Rafale, but the remaining countries worked together to develop the Typhoon, releasing it in 1994. The Eurofighter Tornado project is overseen by the NATO Eurofighter & Tornado Management Agency, and the fighter aircraft is currently constructed by Airbus, Alenia Aermacchi and BAe Systems. Europa Aircraft was established in Britain the early 1990s as a kitplane manufacturer. The Europa design remit was to produce a low cost, high speed kit aircraft for home storage that was ready for flight within five minutes. The inaugural release was the Europa Classic in 1992.



|                      |                               |
|----------------------|-------------------------------|
| Plane                | Eurofighter Typhoon Tranche 1 |
| Year of Introduction | 1994                          |
| Type                 | Multi-Role Fighter Jet        |
| Engine               | Eurojet EJ200 Turbofan x 2    |
| Service Ceiling      | 65,000 ft (19,812 m)          |

The Eurofighter Typhoon Tranche 1 is one variant of the Eurofighter range that continues today. The model is used as an interceptor in Austria, and does not have an air-to-ground function.



|                      |                                     |
|----------------------|-------------------------------------|
| Plane                | Eurofighter Typhoon EF-2000         |
| Year of Introduction | After 1994                          |
| Type                 | Multi-Role Fighter / Fighter Bomber |
| Engine               | Eurojet EJ200 Turbofan x 2          |
| Service Ceiling      | 55,000 ft (16,764 m)                |

The twin-engined Eurofighter Typhoon EF-2000 is one of a number of model variants in service today. The multi-role fighter was developed by four EU countries and is built by three major European manufacturers.



|                      |                        |
|----------------------|------------------------|
| Plane                | Europa Classic         |
| Year of Introduction | 1994                   |
| Type                 | Monoplane Kit Aircraft |
| Engine               | Rotax 912 ULS          |
| Service Ceiling      | Data Unavailable       |

The Europa Classic was the first kitplane produced by Europa. Designed for personal use within European countries, the model is easily stored at home and can be ready to fly within five minutes.



|                      |                        |
|----------------------|------------------------|
| Plane                | Europa XS              |
| Year of Introduction | 1994                   |
| Type                 | Monoplane Kit Aircraft |
| Engine               | Rotax 912 ULS          |
| Service Ceiling      | Data Unavailable       |

The Europa XS is one of two extremely popular kit monoplanes designed and built by Europa. The aircraft uses Mogas fuel and is easily transported and stored away.



|                      |                             |
|----------------------|-----------------------------|
| Plane                | Liberty XL2                 |
| Year of Introduction | 2012                        |
| Type                 | General Aviation Aircraft   |
| Engine               | 4-cyl Continental IOF-240-B |
| Service Ceiling      | 12,500 ft (3,800 m)         |

The Liberty XL2 is not a Europa aircraft, but it was designed by Liberty Aerospace in the USA as an American variant of the Europa XS. The aircraft was wider and slightly taller than its European counterpart.

|                      |                            |
|----------------------|----------------------------|
| Plane                | Eurofighter Typhoon T3     |
| Year of Introduction | After 1994                 |
| Type                 | Multi-Role Fighter Jet     |
| Engine               | Eurojet EJ200 Turbofan x 2 |
| Service Ceiling      | 65,000 ft (19,812 m)       |

The Typhoon T3 was a Eurofighter Typhoon T1 variant. The Eurofighter Typhoon was designed to replace the Tornado F3s and Jaguars used by Britain's Royal Air Force.



# FAIRCHILD

The Fairchild Aviation Corporation was established in New York, USA in 1924. The entity became a parent company for a number of Fairchild based activities, including a Canadian subsidiary and the Fairchild Engine Company. The Fairchild FC-1 was the company's first aircraft in the late 1920s, and the company then undertook aerial photography tasks for the US government using the new Fairchild 71. In 1928/29, Richard E. Byrd included a Fairchild 71 in his South Pole expedition complement. During World War II, Fairchild built the PT-19 and AT-21 trainers, as well as C-82 transports and the long lived Fairchild 24. In the post-war years, the company developed the C-119 Flying Boxcar military transport aircraft, and many thousands of the model were later converted as water bombers. Fairchild acquired the American Helicopter Company in 1954, and began producing Fokker Friendship aircraft under license two years later. The 1950s was also the time when Fairchild began producing wing sections and fuselages for Boeing. Acquisitions in the 1960s included Hiller and Republic, followed by the purchase of Swearingham in the 1970s and Dornier in the 1980s. By the turn of the century, the Fairchild Aircraft Corporation became the property of Allianz A.G. in Germany.



|                      |                                 |
|----------------------|---------------------------------|
| Plane                | Fairchild KR.34C                |
| Year of Introduction | 1928                            |
| Type                 | Utility Biplane                 |
| Engine               | 5-cyl Wright J-6 Whirlwind Five |
| Service Ceiling      | 14,000 ft (4,265 m)             |

The Fairchild KR-34C was a later variant of the original Kreider-Reisner Challenger. When Kreider-Reisner was acquired by Fairchild, the Challenger became the KR series.



|                      |  |
|----------------------|--|
| Plane                | Pilatus Porter PC-6                      |
| Year of Introduction | 1959                                     |
| Type                 | STOL Utility Aircraft                    |
| Engine               | Pratt & Whitney Canada PT6A-27 Turboprop |
| Service Ceiling      | 25,000 ft (8,197 m)                      |

Fairchild Hiller produced the Pilatus Porter PC-6 under license to Pilatus Flugzeugwerke of Switzerland. Over its lifetime, the model was powered by both turboprop and piston engines.



|                      |                      |
|----------------------|----------------------|
| Plane                | Fairchild PT-19      |
| Year of Introduction | 1940                 |
| Type                 | Monoplane Trainer    |
| Engine               | 6-cyl Ranger L-440-3 |
| Service Ceiling      | 15,300 ft (4,700 m)  |

The Fairchild PT-19 was designed to serve as a trainer within the air forces of the USA, Canada and Great Britain. Pilots were trained in the PT-19 when in their pre-solo status, moving up to more agile aircraft as training advanced.

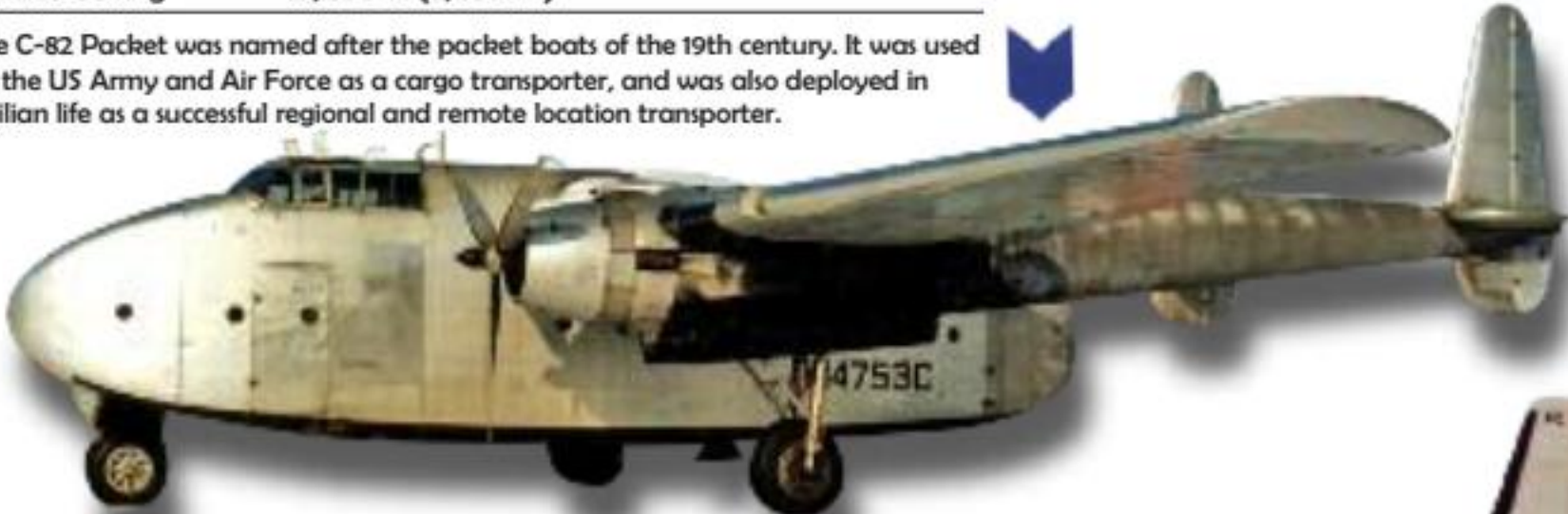
|                      |                           |
|----------------------|---------------------------|
| Plane                | Fairchild Model 24        |
| Year of Introduction | 1932                      |
| Type                 | Light Transport Monoplane |
| Engine               | 6-cyl Ranger L-440-5      |
| Service Ceiling      | 12,700 ft (3,900 m)       |

The Model 24 was designed as a light transport aircraft with seating for four. It was used extensively in the US and Canadian air forces for nearly 15 years.



|                      |                                      |
|----------------------|--------------------------------------|
| Plane                | Fairchild C-82 Packet                |
| Year of Introduction | 1944                                 |
| Type                 | Cargo Aircraft                       |
| Engine               | Pratt & Whitney R-2800-85 Radial x 2 |
| Service Ceiling      | 21,200 ft (6,460 m)                  |

The C-82 Packet was named after the packet boats of the 19th century. It was used by the US Army and Air Force as a cargo transporter, and was also deployed in civilian life as a successful regional and remote location transporter.



|                      |                                       |
|----------------------|---------------------------------------|
| Plane                | Fairchild C-119 Flying Boxcar         |
| Year of Introduction | 1949                                  |
| Type                 | Military Transport                    |
| Engine               | Pratt & Whitney R-4360-20W Radial x 2 |
| Service Ceiling      | 23,900 ft (7,285 m)                   |

The C-119 Flying Boxcar was released in the post-World War II years, and was designed chiefly as a military transport aircraft. Throughout its lifetime, the Flying Boxcar was used to transport paratroops, cargo, military vehicles, personnel and medical evacuees in combat conditions.

|                      |  |
|----------------------|--|
| Plane                | Fairchild Hiller FH-227                        |
| Year of Introduction | 1958   |
| Type                 | Passenger Aircraft                             |
| Engine               | Rolls-Royce Dart RDa.7 Mk 532-7L Turboprop x 2 |
| Service Ceiling      | 28,000 ft (8,540 m)                            |

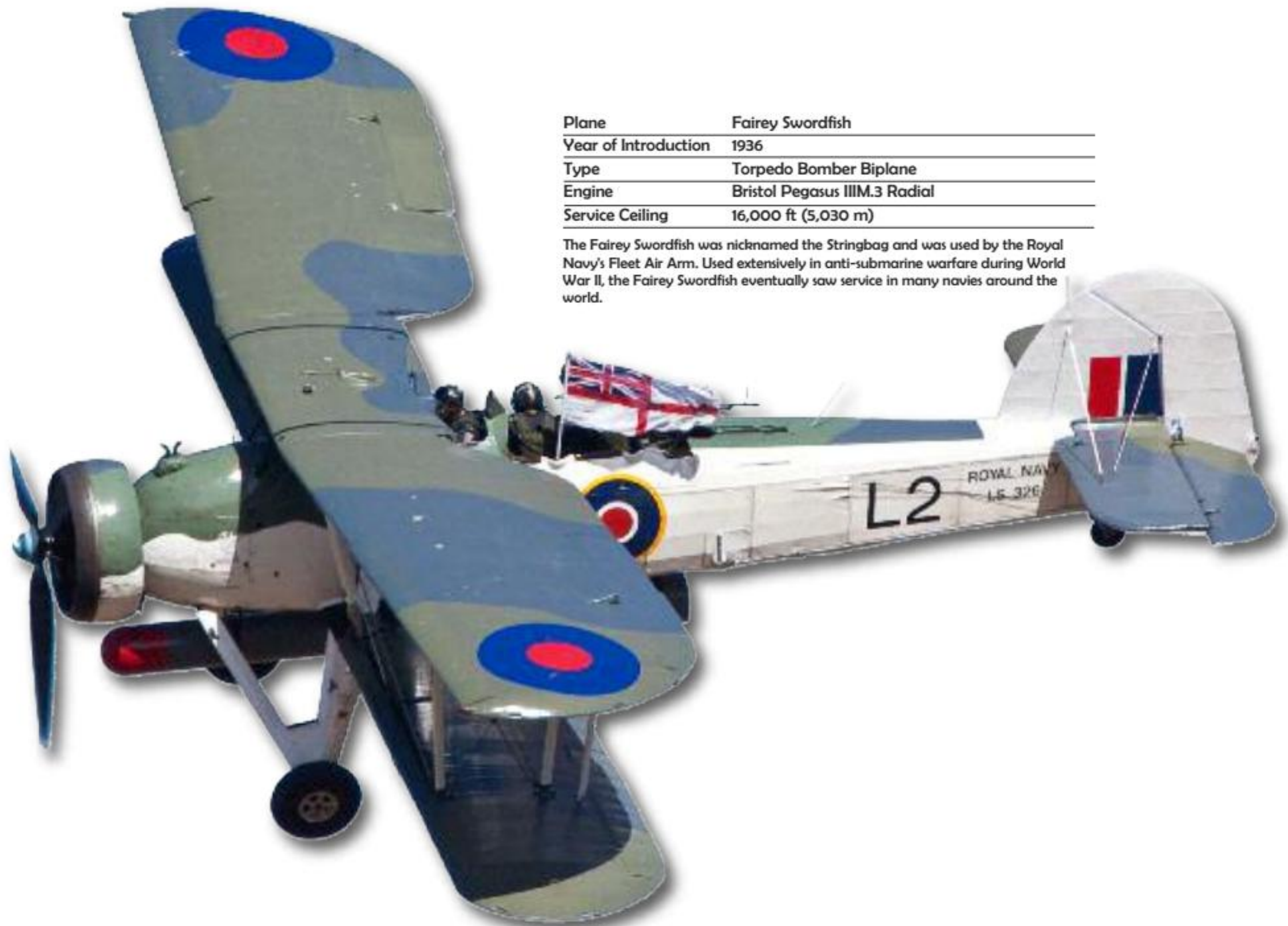
The Fairchild Hiller FH-227 was another Fokker Friendship F27 variant manufactured under license. Numerous models went into service in both civilian and military environments, and some models are still in active service in Asia today.





# FABRICI AEROPLANI - FAIREY - FALCONAR AVIA - FIAT

Italy's Fabrici Aeroplani Ing. O Pomilio was established during World War I as a manufacturer of two seat scout biplanes and later fighters. The company supplied aircraft to a number of Italian Air Force squadrons and was acquired by Ansaldo at the end of the war. In 1915, Charles Fairey established the Fairey Aviation Company in Middlesex, England. The company's first aircraft was the Fairey Campania, which was a seaplane deployed from early aircraft carriers. During the 1930s, Fairey developed the Swordfish, which became a popular World War II aircraft. In the 1950s, the precursor to the Harrier Jump Jet was the Fairey Rotodyne, which had vertical take-off capabilities, and after merging with Westland Helicopters, Fairey developed a range that included the Westland Wasp. Falconar Avia is a kitplane and plan manufacturer based in Alberta, Canada. The company was established in the 1960s and began making gliders. The original Falconar Avia ceased operations in 1994, but it was re-born in 1995 as Falconar Avia Inc. Fiat Aviazione was part of the Fiat Group in its early years, and the company began manufacturing aircraft in 1908. The most renowned of all Fiat's aircraft were the CR.32 and CR.42 of the 1930s, which were produced after Fiat merged with the Società Aeronautica d'Italia. In 1989, the company became Fiat Avio, and the company has since been involved in producing such aircraft as the Harrier Jump Jet and the Tornado.



|                      |                               |
|----------------------|-------------------------------|
| Plane                | Fairey Swordfish              |
| Year of Introduction | 1936                          |
| Type                 | Torpedo Bomber Biplane        |
| Engine               | Bristol Pegasus IIIM.3 Radial |
| Service Ceiling      | 16,000 ft (5,030 m)           |

The Fairey Swordfish was nicknamed the Stringbag and was used by the Royal Navy's Fleet Air Arm. Used extensively in anti-submarine warfare during World War II, the Fairey Swordfish eventually saw service in many navies around the world.



|                      |                  |
|----------------------|------------------|
| Plane                | Pomilio FVL-8    |
| Year of Introduction | 1919             |
| Type                 | Biplane Fighter  |
| Engine               | Liberty 8        |
| Service Ceiling      | Data Unavailable |

The Pomilio FVL-8 was designed for the US Signal Corps. The all-wood biplane was equipped with two machine guns, but no order came from the US government and the project did not move past the prototype stage.



|                      |                       |
|----------------------|-----------------------|
| Plane                | Fiat CR 42 Falco      |
| Year of Introduction | 1939                  |
| Type                 | Fighter Aircraft      |
| Engine               | Fiat A.74 RC38 Radial |
| Service Ceiling      | 33,500 ft (10,210 m)  |

The Fiat CR 42 Falco was designed prior to World War II and was used as primary fighter during the ensuing conflict. The biplane was the last of its kind to operate in front line service.



|                      |  |
|----------------------|--|
| Plane                | Fairey Gannet I                                  |
| Year of Introduction | 1953   |
| Type                 | Carrier Borne Monoplane                          |
| Engine               | Armstrong Siddeley Double Mamba ASMD 1 Turboprop |
| Service Ceiling      | 25,000 ft (7,600 m)                              |

The Fairey Gannet I was a later development of the company's earlier carrier-borne aircraft. Operated by a crew of three, the aircraft was used in numerous roles from aircraft carriers.



|                      |                           |
|----------------------|---------------------------|
| Plane                | Fiat G.46                 |
| Year of Introduction | 1947                      |
| Type                 | Military Trainer          |
| Engine               | 6-cyl Alfa Romeo 115-1ter |
| Service Ceiling      | 17,400 ft (5,300 m)       |

The Fiat G.46 was designed and released following the end of World War II. The model's prototype was initially powered by an Alfa Romeo Ibis engine, which was replaced by an Alfa Romeo Iler.



|                      |                                       |
|----------------------|---------------------------------------|
| Plane                | Fiat G.91                             |
| Year of Introduction | 1958                                  |
| Type                 | Jet Fighter                           |
| Engine               | Bristol Siddeley Orpheus 803 Turbojet |
| Service Ceiling      | 43,000 ft (13,100 m)                  |

The Fiat G.91 began life as the winner of a NATO design competition in 1953, and entered service in 1961 as part of the Italian Air Force. During the decade, the aircraft was used in the African theatre during the Portuguese Colonial War. It remained in service for more than 35 years.





# FIESELER STORCH - HB FLUGTECHNIK - FOCKE-WULF

Throughout the course of World War II, aircraft manufacturer Morane-Saulnier came under German control and was used to produce the Fieseler Storch. Following the end of the conflict, the aircraft was named the Morane-Saulnier MS.500 Criquet. Austria's HB-Flugtechnik was originally established as HB-Aircraft Industries Luftfahrzeug in the 1970s. The company designed light aircraft, and its inaugural model was the HB-21 Motorglider. A total of nine models have been produced to date and include the Alfa, Amigo, Cubby, Dandy and Tornado. Focke-Wulf Flugzeugbau was established in 1923 in Germany and was one of the most recognised of the Axis powers' aircraft during World War II. Originally named Bremer Flugzeugbau, the company was headed by Henrich Focke, Georg Wulf and Werner Naumann. In 1931, the company merged with Albatros-Flugzeugwerke and began work on the Fw44 Goldfinch. The Focke-Wulf Fw 200 was released in 1938, alongside the military Fw 190, which became one of the Luftwaffe's most important fighter aircraft of World War II. In the 1960s, Focke-Wulf moved from post-war gliders to become part of a three-manufacturer rocket development group. In 1964, Focke-Wulf and Weserflug merged to become Vereinigte Flugtechnische Werke and later EADS/Airbus.



|                      |  |
|----------------------|--|
| Plane                | Fieseler/Morane-Saulnier MS.230 'Storch' |
| Year of Introduction | 1929                                     |
| Type                 | Elementary Trainer                       |
| Engine               | 9-cyl × Salmson 9AB                      |
| Service Ceiling      | 16,405 ft (5,000 m)                      |

The MS.230 became the main training aircraft for the French Air Force in the 1930s. Produced by Morane-Saulnier, The Fieseler Storch was equivalent to the USA's Stearman trainer and the British de Havilland Tiger Moth.



|                      |                                 |
|----------------------|---------------------------------|
| Plane                | Fieseler/Morane-Saulnier MS.317 |
| Year of Introduction | 1932                            |
| Type                 | Trainer                         |
| Engine               | Salmson 9Nc Radial              |
| Service Ceiling      | 18,045 ft (5,500 m)             |

The MS.317 was a variant of the MS.300 and was designed as a high-powered model. Only five of the models were produced for civilian use.



|                      |                      |
|----------------------|----------------------|
| Plane                | Focke-Wulf Fw 190    |
| Year of Introduction | 1941                 |
| Type                 | Fighter Aircraft     |
| Engine               | BMW 801 D-2 Radial   |
| Service Ceiling      | 37,430 ft (11,410 m) |

The Focke-Wulf Fw 190 was a fighter aircraft during World War II. When first released, it had air superiority over the Spitfire Mk.4 before the Mk. 5 was released.



|                      |                                 |
|----------------------|---------------------------------|
| Plane                | Fieseler/Morane-Saulnier D-3801 |
| Year of Introduction | 1938                            |
| Type                 | Fighter Aircraft                |
| Engine               | V-12 Hispano-Suiza 12V-31       |
| Service Ceiling      | Data Unavailable                |

The MS.406 was introduced in 1938 and became France's most significant fighter during the World War II Battle for France. The model was quickly overpowered by the Messerschmitt Bf 109E, but was effective for the Swiss and Finnish air forces.

|                      |                             |
|----------------------|-----------------------------|
| Plane                | Focke-Wulf Fw44j            |
| Year of Introduction | 1932                        |
| Type                 | Sport / Training Biplane    |
| Engine               | Siemens-Halske Sh 14 Radial |
| Service Ceiling      | 12,790 ft (3,900 m)         |

The Focke-Wulf Fw 44 was designed with two tandem arranged open cockpits, each of which had its own instruments and controls. The model did not have wing flaps, but instead employed upper and lower wing ailerons.



|                      |                          |
|----------------------|--------------------------|
| Plane                | Fieseler Fi 156 'Storch' |
| Year of Introduction | 1937                     |
| Type                 | Liaison Aircraft         |
| Engine               | V-8 Argus As 10          |
| Service Ceiling      | 15,090 ft (4,600 m)      |

The Fieseler Fi 156 Storch was introduced before World War II and used extensively throughout the conflict. The model was also produced in a number of countries in the post-war years.

|                      |                              |
|----------------------|------------------------------|
| Plane                | Focke-Wulf Fw 149            |
| Year of Introduction | 1953                         |
| Type                 | Training/Utility Aircraft    |
| Engine               | 6-cyl × Lycoming GO-480 B1A6 |
| Service Ceiling      | 16,404 ft (5,000 m)          |

The Focke-Wulf Fw 149 began life as the Piaggio P.149 and was later built by Focke-Wulf under license. It was designed to accommodate four or five and was later placed into service with the Swissair Flying School.



# FOKKER - FOLLAND

Fokker was established in Germany in 1912 by Anthony Fokker, a Dutch national who had studied engineering in Germany. When World War I broke out, Fokker built many notable models, which included the Eindecker and Scourge, as well as the D.V line up to D.VIII. Following the war, Fokker returned to the Netherlands and began manufacturing again. By the end of the 1920s, Fokker was the largest aircraft manufacturer in the world, selling the F.VIIa passenger model to over 50 airline companies. The Fokker Aircraft Corporation of America was established during the period and merged with North American, which eventually became part of GM. Fokker's Dutch factories were taken over by Germany during World War II and rebuilt in the late 1940s to produce numerous military aircraft under license. In 1958, the arrival of the Fokker F-27 Friendship changed the face of passenger airline travel, while the company also moved into satellite design. The 1980s heralded involvement in the F-16 Fighting Falcon project, but the 1990s brought financial problems that ended in bankruptcy in 1996. Folland Aircraft was established in 1937 as British Marine Aircraft Limited. Changing its name to Folland Aircraft in the same year, the company made aircraft parts for Bristol, de Havilland and Vickers military aircraft. Folland's first aircraft was the Folland Fo.108 in 1940. The company released the Folland Midge in 1954 and the Folland Gnat in 1959, before being acquired by Hawker Siddeley. The Folland name was discontinued in 1963.



|                      |                               |
|----------------------|-------------------------------|
| Plane                | Fokker D.VII                  |
| Year of Introduction | 1918                          |
| Type                 | Fighter Biplane               |
| Engine               | 6-cyl Mercedes D.III / D.IIIa |
| Service Ceiling      | 19,685 ft (6,000 m)           |

Over 3,000 Fokker D.VIIs were produced in the latter half of 1918 alone, and many went on to extensive use well after World War I.



|                      |                            |
|----------------------|----------------------------|
| Plane                | Fokker D-XXI               |
| Year of Introduction | 1936                       |
| Type                 | Fighter                    |
| Engine               | 9-cyl Bristol Mercury VIII |
| Service Ceiling      | 37,238 ft (11,350 m)       |

The Fokker D.XXI was designed for the East Indies based Royal Netherlands Army Air Force. It was a strongly built model that entered service during World War II for the Netherlands and Finland.



|                      |                       |
|----------------------|-----------------------|
| Plane                | Fokker D.VIII         |
| Year of Introduction | 1918                  |
| Type                 | Monoplane Fighter     |
| Engine               | 9-cyl Oberursel UR.II |
| Service Ceiling      | 19,685 ft (6,000 m)   |

The Fokker D.VIII was the result of a redesign of the Fokker E.V. The redesign was a necessity brought about by wing failures and fatal accidents experienced with the earlier model.

|                      |                  |
|----------------------|------------------|
| Plane                | Fokker S.1       |
| Year of Introduction | 1919             |
| Type                 | Trainer          |
| Engine               | Le Rhône 80 hp   |
| Service Ceiling      | Data Unavailable |

The Fokker S.1 was the first in a line of trainers built by the Dutch Fokker company after World War I. The aircraft had side-by-side seating for instructor and student.

|                      |  |
|----------------------|--|
| Plane                | Folland Gnat                             |
| Year of Introduction | 1959                                     |
| Type                 | Subsonic Light Fighter                   |
| Engine               | Bristol Siddeley Orpheus 701-01 Turbojet |
| Service Ceiling      | 48,000 ft (14,630 m)                     |

The Folland Gnat was released four years after the Folland Midge. It was a development of the Midge and became the RAF Red Arrows Aerobatics Team's model. Later, the Gnat was manufactured under license as the Indian HAL Ajeet.



|                      |                               |
|----------------------|-------------------------------|
| Plane                | Fokker 100                    |
| Year of Introduction | 1988                          |
| Type                 | Medium Airliner               |
| Engine               | Rolls-Royce Tay Mk 620-15 x 2 |
| Service Ceiling      | 35,000 ft (11,000 m)          |

The Fokker 100 satisfied a gap in the 100-passenger airliner market when it was first introduced. It was Fokker's largest airliner and many remain in service today.

|                      |                               |
|----------------------|-------------------------------|
| Plane                | Fokker F-27 Friendship        |
| Year of Introduction | 1955                          |
| Type                 | Passenger Airliner            |
| Engine               | Rolls-Royce Dart Mk.532-7 x 2 |
| Service Ceiling      | Data Unavailable              |

The Fokker F-27 Friendship became one of the world's most popular passenger airliners. It was in production between 1955 and 1987. The aircraft had seating capacity for 28 passengers.



# GENERAL DYNAMICS - GLOBE - GLOSTER

The General Dynamics Corporation was established in the USA as a result of a series of complex mergers and acquisitions. The aircraft manufacturer's roots began with the Holland Torpedo (Electric) Boat Company in 1896, which purchased Canadair after World War II and later divested the company and became General Dynamics. The new entity purchased Convair in 1953 before building several significant models, which included the F-106 Delta Dart and the Convair 880 and 990 among others. Later aircraft included the F-111 and the F-16 Fighting Falcon. The Globe Aircraft Corporation was established in Texas in 1941, having operated as the Bennet Aircraft Corporation in the pre-war years. Aside from producing Beech aircraft under contract, Globe released only one model - the Globe GC-1 Swift. In 1947, the company was purchased by TEMCO. The Gloster Aircraft Company began life as the Gloucestershire Aircraft Company Limited in 1917. In 1920, Gloster acquired the rights to construct the Nieuport Nighthawk fighter. Hawker Aircraft took the company over in 1934 before the Gloster Gladiator was released. In its heyday, Gloster produced the Gloster Javelin among other landmark aircraft. Gloster/Hawker merged with Whitworth in 1961, and the name eventually disappeared when Hawker Siddeley went through a rebranding process.



|                      |                             |
|----------------------|-----------------------------|
| Plane                | Gloster Gauntlet            |
| Year of Introduction | 1935                        |
| Type                 | Fighter Biplane             |
| Engine               | 9-cyl Bristol Mercury VI 52 |
| Service Ceiling      | 33,500 ft (10,210 m)        |

The Gloster Gauntlet began life as Gloster's prototype S.5.19, which was originally powered by a Bristol Mercury VI engine. The Gauntlet Mk.II was more a Hawker product than a Gloster one.



|                      |                           |
|----------------------|---------------------------|
| Plane                | Gloster Gladiator         |
| Year of Introduction | 1937                      |
| Type                 | Fighter Biplane           |
| Engine               | Bristol Mercury IX Radial |
| Service Ceiling      | 32,800 ft (10,000 m)      |

The Gloster Gladiator and its Sea Gladiator version were designed and built for use by the RAF and the Fleet Air Arm in Great Britain before the onset of World War II. The Aircraft was the last of the RAF's fighter biplanes.

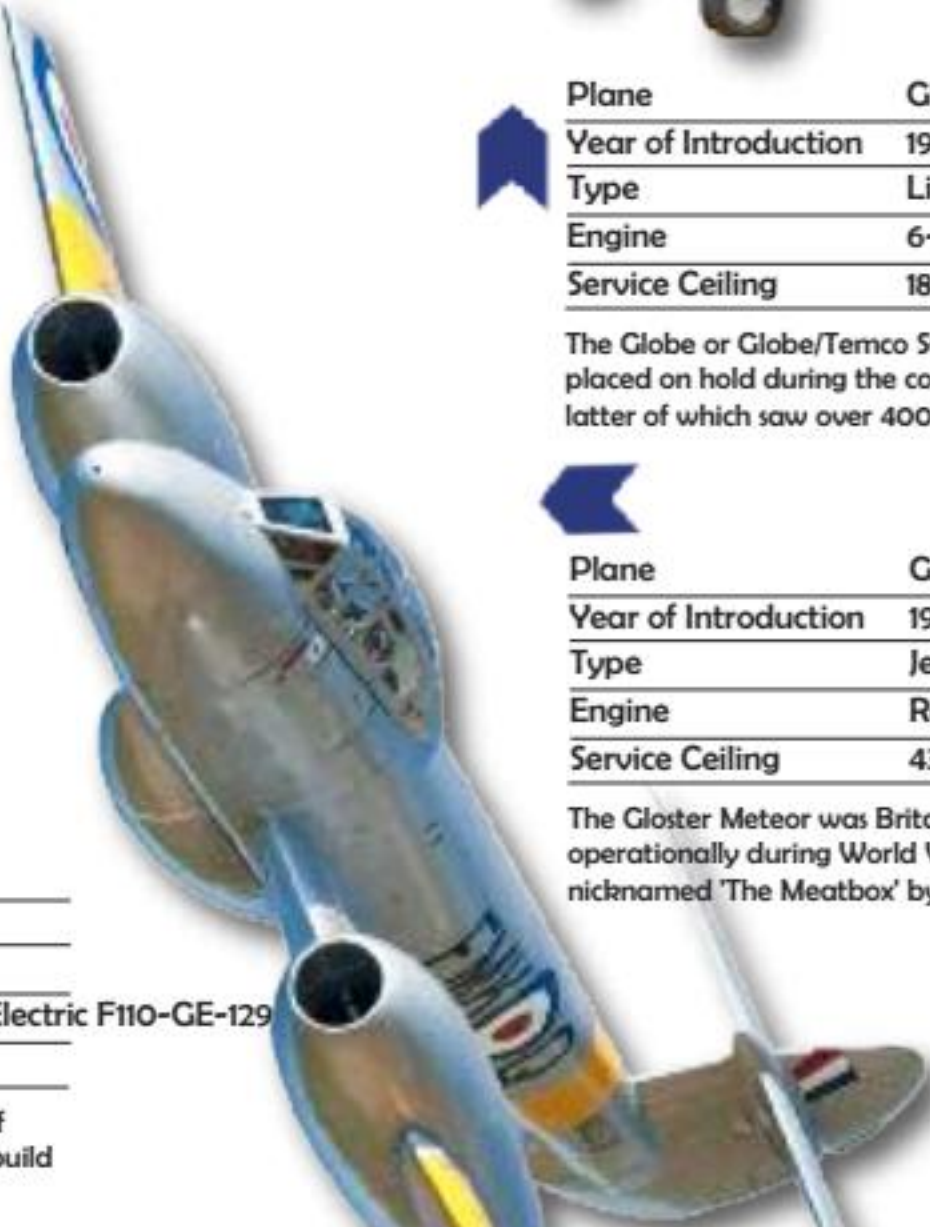


|                      |                        |
|----------------------|------------------------|
| Plane                | Globe GC-1B Swift      |
| Year of Introduction | 1946                   |
| Type                 | Light Sport Monoplane  |
| Engine               | 6-cyl Continental C125 |
| Service Ceiling      | 18,000 ft (5,500 m)    |

The Globe or Globe/Temco Swift was designed before World War II, and then placed on hold during the conflict. The 1B Swift was a variant of the 1A Swift, the latter of which saw over 400 models produced.

|                      |                                    |
|----------------------|------------------------------------|
| Plane                | Gloster Meteor T7                  |
| Year of Introduction | 1944                               |
| Type                 | Jet Fighter                        |
| Engine               | Rolls-Royce Derwent 8 Turbojet x 2 |
| Service Ceiling      | 43,000 ft (13,100 m)               |

The Gloster Meteor was Britain's first jet fighter, and was the only Allied jet used operationally during World War II. It became a successful fighter and was nicknamed 'The Meatbox' by its air crew.



|                      |  |
|----------------------|--|
| Plane                | General Dynamics-Grumman EF-111A Raven |
| Year of Introduction | 1983                                   |
| Type                 | Electronic Warfare Aircraft            |
| Engine               | Pratt & Whitney TF30-P-3 x 2           |
| Service Ceiling      | 45,000 ft (13,715 m)                   |

The EF-111A Raven was designed as a replacement for the Douglas B-66 Destroyer within the USAF. The project began with existing GD F-111As that were then converted to an electronic warfare platform. The aircraft was in service until 1998.



|                      |   |
|----------------------|---|
| Plane                | General Dynamics F-16 Fighting Falcon                       |
| Year of Introduction | 1978  |
| Type                 | Jet Fighter / Interceptor                                   |
| Engine               | Pratt & Whitney F100-PW-200 or General Electric F110-GE-129 |
| Service Ceiling      | >50,000 ft (15,240 m)                                       |

Since its first release, the F-16 Fighting Falcon has been released in a number of variants. A number of manufacturers aside from General Dynamics currently build the jet fighter under license.



|                      |  |
|----------------------|--|
| Plane                | General Dynamics FR-111C Aardvark                |
| Year of Introduction | 1967   |
| Type                 | Supersonic Tactical Attack/Interdictory Aircraft |
| Engine               | Pratt & Whitney TF30-P-100 Turbofan x 2          |
| Service Ceiling      |  |

The F111-Aardvark was designed with multiple roles in mind, those being reconnaissance, strategic nuclear bomber and electronic warfare aircraft. Its design was a pioneering one and included new variable sweep wings, terrain-following radar and high speed, low level flight.



|                      |                                      |
|----------------------|--------------------------------------|
| Plane                | Gloster Javelin FAW.5                |
| Year of Introduction | 1956                                 |
| Type                 | Subsonic Interceptor                 |
| Engine               | Armstrong Siddeley Sapphire Sa.6 x 2 |
| Service Ceiling      | 52,800 ft (15,865 m)                 |

The Javelin FAW.5 was a variant of the original Gloster Javelin. The model was equipped with AL17 Radar and four ADEN 30mm cannon.





# GRUMMAN

The Grumman Aerospace Corporation was established as the Grumman Aircraft Engineering Corporation in 1929 and produced floats for the US Navy. The company's first aircraft was the Grumman FF-1 biplane, which had retractable landing gear. During World War II, the company produced its Avenger torpedo bomber and its 'Cat' range of fighter aircraft, namely the Wildcat, Hellcat, Tigercat and Bearcat, although the latter two did not serve during the conflict. The Grumman A-6 Intruder and E-2 Hawkeye were extremely successful models in the early 1960s, and were followed in the 1970s by the Prowler and Tomcat. One of Grumman's greatest claims to fame was for its role as the main contractor for the building of the Apollo Lunar Modules, with a later contract to Rockwell International to supply stabiliser sections and wings for the Space Shuttle. In 1994, Grumman was acquired by the Northrop Corporation and became part of Northrop Grumman.



|                      |                         |
|----------------------|-------------------------|
| Plane                | Grumman TBM-3 Avenger   |
| Year of Introduction | 1942                    |
| Type                 | Torpedo Bomber          |
| Engine               | Wright R-2600-20 Radial |
| Service Ceiling      | 30,100 ft (9,170 m)     |

The TBM-3 Avenger was a variant of the TBM-1, and was used as a torpedo bomber with the United States Marine Corps and Navy. The TBM prefix indicated that the aircraft was built by General Motors.



|                      |                                   |
|----------------------|-----------------------------------|
| Plane                | Grumman F6F-5 Hellcat             |
| Year of Introduction | 1943                              |
| Type                 | Carrier Based Fighter             |
| Engine               | Pratt & Whitney R-2800-10W Radial |
| Service Ceiling      | 37,300 ft (11,370 m)              |

The F6F-5 Hellcat was the British variant of the Grumman Hellcat. It sported a new bullet-proof windscreen, an upgraded engine cowling and strengthened surfaces.



|                      |                                  |
|----------------------|----------------------------------|
| Plane                | Grumman FM-2 Wildcat             |
| Year of Introduction | 1940                             |
| Type                 | Front Line Fighter Aircraft      |
| Engine               | Pratt & Whitney R-1830-76 Radial |
| Service Ceiling      | 39,500 ft (12,000 m)             |

The FM-2 Wildcat was constructed by General Motors after the Grumman-produced models were superseded. The Wildcat was also used as a carrier borne aircraft, and it carried out escort duties.

|                      |                                  |
|----------------------|----------------------------------|
| Plane                | Grumman RQ-4 Global Hawk         |
| Year of Introduction | 1998                             |
| Type                 | Unmanned Surveillance Aircraft   |
| Engine               | Rolls-Royce F137-RR-100 Turbofan |
| Service Ceiling      | 60,000 ft (18,288 m)             |

The RQ-4 Global Hawk was code named the Tier 1+ during its design phase. It was operated by the USAF at high altitudes and is used for the collection of intelligence information.



|                      |                                     |
|----------------------|-------------------------------------|
| Plane                | Grumman G-164 Ag Cat                |
| Year of Introduction | 1957                                |
| Type                 | Agricultural Biplane                |
| Engine               | Pratt & Whitney PT6A-34AG Turboprop |
| Service Ceiling      |                                     |

Grumman's G-164 Ag Cat was the first extensively produced aircraft that was purpose built for use in agriculture. It operated as a crop duster across North America and was extremely popular and successful.

|                      |                                   |
|----------------------|-----------------------------------|
| Plane                | Grumman F8F-2 Bearcat             |
| Year of Introduction | 1945                              |
| Type                 | Carrier Based Fighter             |
| Engine               | Pratt & Whitney R-2800-30W Radial |
| Service Ceiling      | 40,800 ft (12,436 m)              |

The EA-6B Prowler was designed using the A-6 Intruder airframe. In its lifetime, the Prowler was utilised in numerous roles. The EA-6B was a development of the EA-6A and was manned by one pilot and two to three crew.



|                      |                                    |
|----------------------|------------------------------------|
| Plane                | Grumman HU-16B Albatross           |
| Year of Introduction | 1949                               |
| Type                 | Amphibious Flying Boat             |
| Engine               | 9-cyl Wright R-1820-76 Cyclone x 2 |
| Service Ceiling      | 21,500 ft (6,550 m)                |

The TBM-3 Avenger was a variant of the TBM-1, and was used as a torpedo bomber with the United States Marine Corps and Navy. The TBM prefix indicated that the aircraft was built by General Motors.



# GULFSTREAM

The Gulfstream Aerospace Corporation began life when the Grumman Aircraft Engineering Company designed the Grumman Gulfstream in the 1950s. Grumman then established the Gulfstream Aerospace Corporation in 1958. Separating the company's military and civil aircraft divisions, Grumman moved its civil aircraft entity to Georgia in 1966. In the early 1970s, Grumman merged with the American Aviation Corporation, and sold the Gulfstream line to American Jet Industries later in the decade. The new owner changed the company name to Gulfstream American and moved into the 1980s with the Gulfstream GIII and GIIIB models. Chrysler acquired Gulfstream in 1985 as part of the motor company's expansion plans, and sold it back to the original owner in 1989. The late 1990s saw the arrival of the Gulfstream GIV-SP and GV, and the latter set world speed records. In the 21st century, Gulfstream was acquired by General Dynamics and went on to produce a number of long range jets. The company currently produces ultra-long range jets in several global locations.

|                      |                            |
|----------------------|----------------------------|
| Plane                | Gulfstream Aerospace G450  |
| Year of Introduction | 2004                       |
| Type                 | Business Jet               |
| Engine               | Rolls-Royce Tay 611-8C x 2 |
| Service Ceiling      | 45,000 ft (13,716 m)       |

The Gulfstream Aerospace G450 was designed as the GIV-X. In service today, the aircraft is one foot longer than the Gulfstream IV and has an increased range and an advanced cabin environment.





|                      |  |
|----------------------|--|
| Plane                | Gulfstream Aerospace G650                  |
| Year of Introduction | 2008                                       |
| Type                 | Business Jet                               |
| Engine               | Rolls-Royce Deutschland BR725 Turbofan x 2 |
| Service Ceiling      | 51,000 ft (15,500 m)                       |

The Gulfstream G650 is capable of carrying up to 18 passengers and is the fastest jet in the company's current complement. The extended range variant of the G650 is the G650ER.



|                      |                           |
|----------------------|---------------------------|
| Plane                | Gulfstream IV             |
| Year of Introduction | 1985                      |
| Type                 | Business Jet              |
| Engine               | Rolls-Royce Tay 611-8 x 2 |
| Service Ceiling      | 45,000 ft (13,716 m)      |

The Gulfstream IV served as a significant family of business jets for Gulfstream over nearly four decades. Many Gulfstream IV variants have been modified for use in all four USA military services.



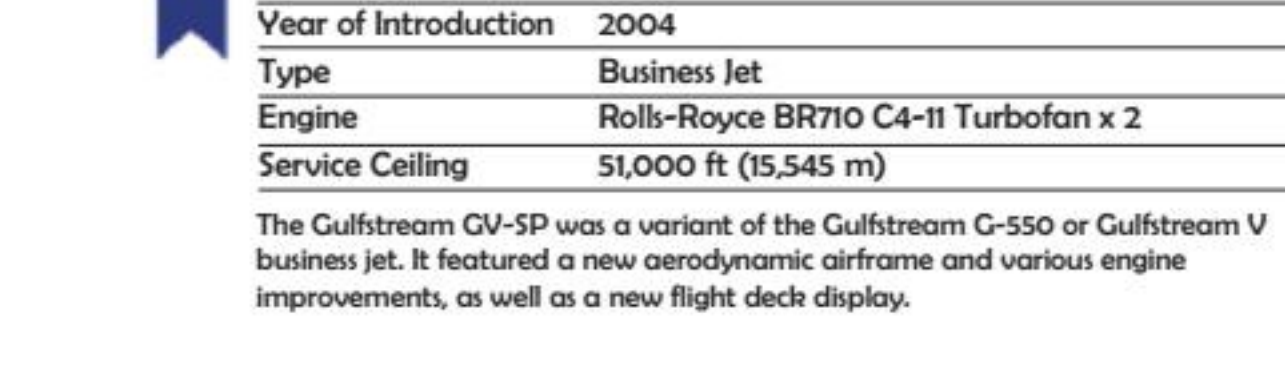
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|----------------------|---|
| Plane                | Gulfstream C-20H                              |
| Year of Introduction | 1980  |
| Type                 | Business Jet                                  |
| Engine               | Rolls-Royce Spey RB.163 Mk 511-8 Turbofan x 2 |
| Service Ceiling      | 45,000 ft (13,716 m)                          |

The Gulfstream C-20H was the United States Air Force's variant of the Gulfstream IV. Other variants of the IV model were the Army's C-20F and J and the Navy/Marines C-20G.



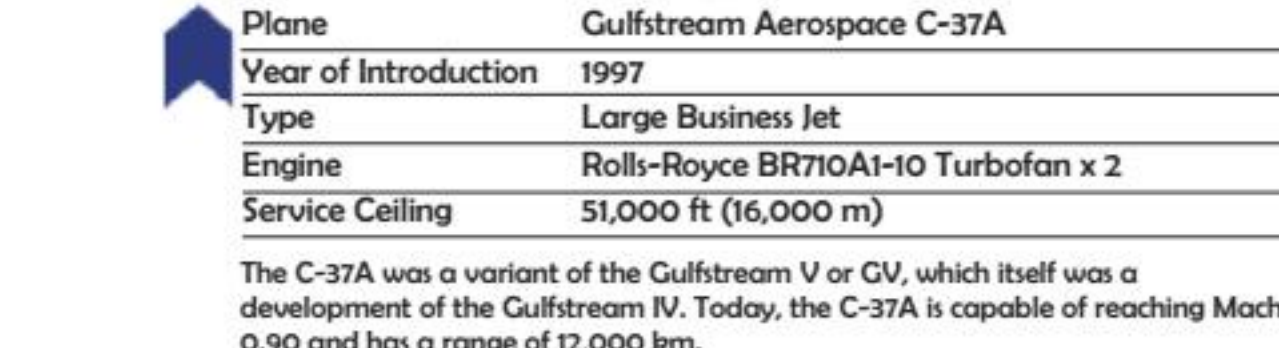
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|----------------------|--------------------------------------|
| Plane                | Gulfstream Aerospace GV-SP           |
| Year of Introduction | 2004                                 |
| Type                 | Business Jet                         |
| Engine               | Rolls-Royce BR710 C4-11 Turbofan x 2 |
| Service Ceiling      | 51,000 ft (15,545 m)                 |

The Gulfstream GV-SP was a variant of the Gulfstream G-550 or Gulfstream V business jet. It featured a new aerodynamic airframe and various engine improvements, as well as a new flight deck display.



|                      |                                     |
|----------------------|-------------------------------------|
| Plane                | Gulfstream Aerospace C-37A          |
| Year of Introduction | 1997                                |
| Type                 | Large Business Jet                  |
| Engine               | Rolls-Royce BR710A1-10 Turbofan x 2 |
| Service Ceiling      | 51,000 ft (16,000 m)                |

The C-37A was a variant of the Gulfstream V or GV, which itself was a development of the Gulfstream IV. Today, the C-37A is capable of reaching Mach 0.90 and has a range of 12,000 km.



|                      |  |
|----------------------|--|
| Plane                | Gulfstream G200                            |
| Year of Introduction | 1999                                       |
| Type                 | Business Jet                               |
| Engine               | Pratt & Whitney Canada PW306A Turbofan x 2 |
| Service Ceiling      | 45,000 ft (13,700 m)                       |

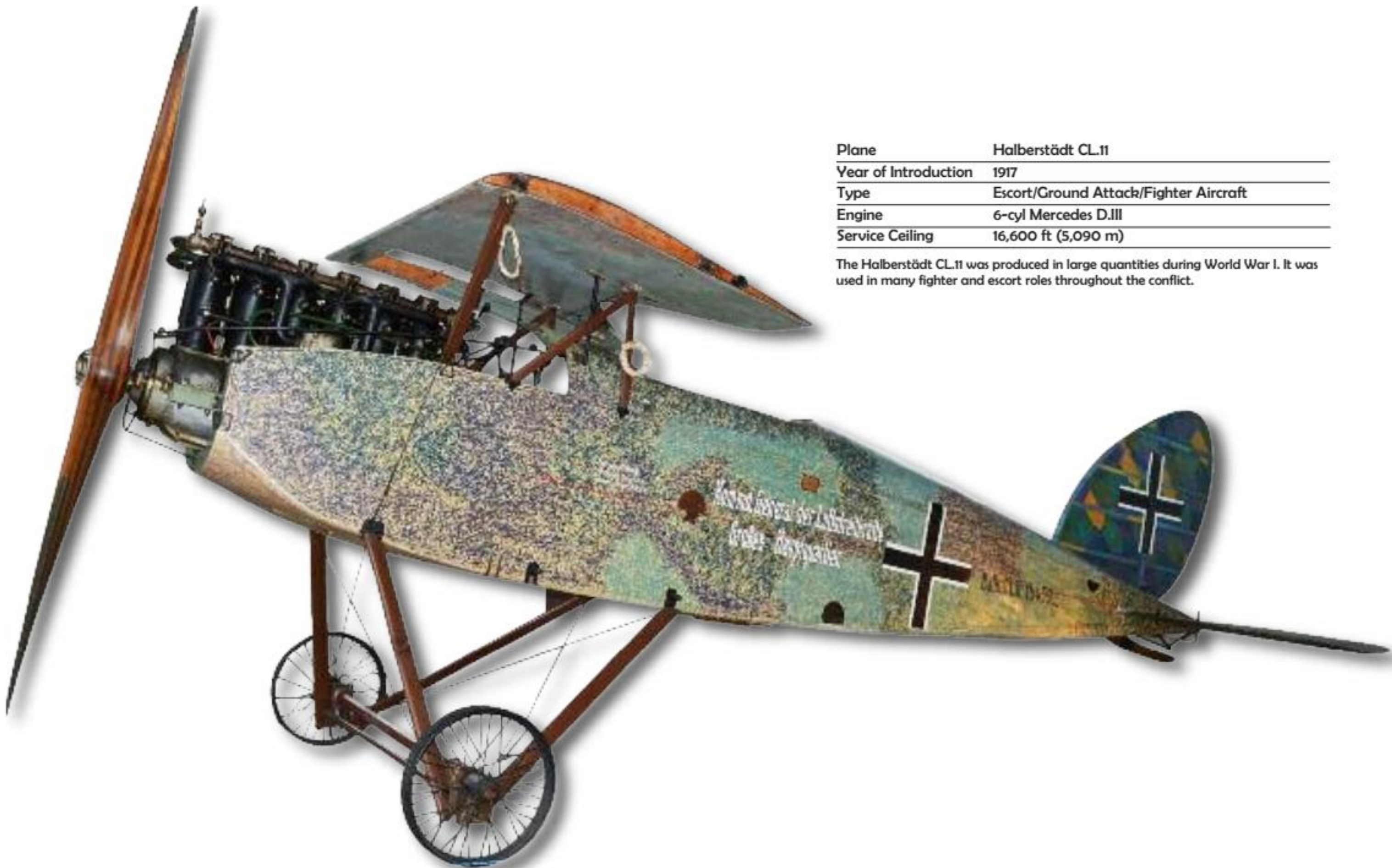
The Gulfstream G200 was originally designed by Israel Aircraft Industries as the IAI Galaxy. The wide fuselage allowed for three-abreast seating and was equipped with advanced avionics.





# HALBERSTÄDTER - HANDLEY PAGE HEINKEL

Halberstädter Flugzeugwerke was established in 1912 as the Deutsche Bristol Werke Flugzeug-Gesellschaft mbH. The company was a joint German-British one that manufactured Bristol aircraft. In 1913, the company began working on its own designs and built several thousand fighter and reconnaissance aircraft that were in service during World War I. Halberstädter also produced scout planes, and when barred from aircraft production after World War I, switched to agricultural machinery production. Handley Page Limited was a British aircraft company established in 1909. The company established a Cricklewood based manufacturing facility in 1912 and produced heavy bomber aircraft for use in World War I. Between the wars, notable designs included the Handley-Page Transport and the H.P.42 luxury airliner. The Handley Page Hampden was manufactured for use during World War II as a bomber, and was joined by the HP.57 Halifax. Following the release of the Handley Page Jetstream in the 1960s, the company was liquidated. Heinkel was established as the Heinkel Flugzeugwerke in Germany before World War II and went on to produce bombers that were extensively used by Germany during the conflict. The company's fighter aircraft were passed over in favour of the available Messerschmitt offerings, and the company merged with Hirth to become Heinkel-Hirth in 1941.



|                      |                                       |
|----------------------|---------------------------------------|
| Plane                | Halberstadt CL.11                     |
| Year of Introduction | 1917                                  |
| Type                 | Escort/Ground Attack/Fighter Aircraft |
| Engine               | 6-cyl Mercedes D.III                  |
| Service Ceiling      | 16,600 ft (5,090 m)                   |

The Halberstadt CL.11 was produced in large quantities during World War I. It was used in many fighter and escort roles throughout the conflict.



|                      |                           |
|----------------------|---------------------------|
| Plane                | Heinkel He-100            |
| Year of Introduction | 1938                      |
| Type                 | Fighter Aircraft          |
| Engine               | V-12 Daimler-Benz DB 601M |
| Service Ceiling      | 36,089 ft (11,000 m)      |

The Heinkel He-100 was never placed into series production, but it was nevertheless an extremely fast and capable fighter. Almost 20 prototypes were developed, but none survived World War II.



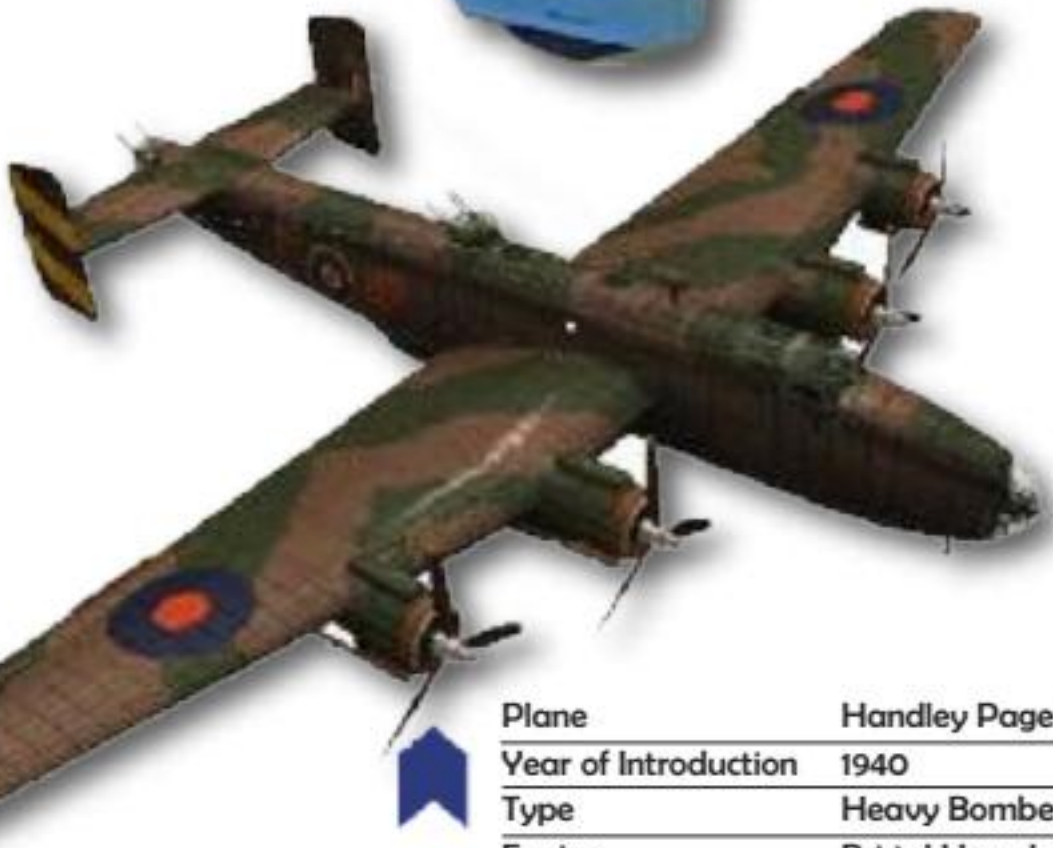
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|----------------------|---------------------------|
| Plane                | Heinkel He 162            |
| Year of Introduction | 1945                      |
| Type                 | Fighter Aircraft          |
| Engine               | BMW 003E-1 / E-2 Turbojet |
| Service Ceiling      | 39,400 ft (12,000 m)      |

The Heinkel He 162 was known as the Volksjäger, or People's Fighter. Constructed chiefly of wood, the aircraft was a hastily built but extremely successful fighter for Germany during World War II.



|                      |  |
|----------------------|--|
| Plane                | Handley Page HP.137 Jetstream          |
| Year of Introduction | 1969                                   |
| Type                 | Small Airliner                         |
| Engine               | Turbomeca Astazou XVI C2 Turboprop x 2 |
| Service Ceiling      | 25,000 ft (7,620 m)                    |

The HP.137 Jetstream was designed to satisfy the need for a regional commuter in the USA. In later years, the design was upgraded by BAe to become the Jetstream 31 and 32.



|                      |                                 |
|----------------------|---------------------------------|
| Plane                | Handley Page Halifax            |
| Year of Introduction | 1940                            |
| Type                 | Heavy Bomber                    |
| Engine               | Bristol Hercules XVI Radial x 4 |
| Service Ceiling      | 24,000 ft (7,315 m)             |

The Handley Page Halifax was in service throughout World War II and was used in several roles outside of its primary existence as a heavy bomber. It was in service with the British, Canadian, Australian, Free French, and Polish air forces, and later served with Egypt, Pakistan and France.



|                      |   |
|----------------------|---|
| Plane                | Handley Page Victor                               |
| Year of Introduction | 1958  |
| Type                 | Strategic Bomber                                  |
| Engine               | Armstrong Siddeley Sapphire A.S.5a.7 Turbojet x 4 |
| Service Ceiling      | 56,000 ft (17,000 m)                              |

The Handley Page Victor was developed during the Cold War. It was the final V-Bomber in service for Britain's RAF, but suffered metal fatigue due to operating extensively at lower altitudes than its design allowed for.



|                      |                                |
|----------------------|--------------------------------|
| Plane                | Handley Page HP.67 Hastings T5 |
| Year of Introduction | 1948                           |
| Type                 | Military Transport             |
| Engine               | 14-cyl Bristol Hercules 106    |
| Service Ceiling      | 26,500 ft (8,077 m)            |

The Hastings T5 was a variant of the Handley Page HP.67 Hastings. It was designed to haul freight and troops and was the largest transport aircraft of its time. It was converted to train bomber crews in its T5 variant.



# HAWKER

Britain's Hawker Aircraft Limited produced some of the most noteworthy and famous aircraft in the history of British aviation. Harry Hawker was a Sopwith test pilot who found himself out of work when Sopwith went in to liquidation at the end of World War I. Along with Thomas Sopwith and others, Hawker established H.G. Hawker Engineering in the early 1920s. The company became Hawker Aircraft Limited in 1933 and purchased Gloster before merging with Armstrong Siddeley and forming Hawker Siddeley Aircraft. Hawker Aircraft continued to produce models branded as Hawker under the Hawker Siddeley umbrella, and notable aircraft of the inter-war years included the Hawker Hind and Hart, which were fighter and bomber mainstays for Britain's RAF. During World War II, it was the Hurricane that starred alongside Supermarine's Spitfire to win the Battle of Britain. Following the war, Hawker aircraft continued in design and production as pure Hawkers until 1963, when the brand name was discontinued after production of the Hawker P.1127. The Hawker name was resurrected in the Hawker Beechcraft line, which was released as part of Raytheon's (who purchased BAe's product line in 1993) aircraft line.



|                      |                             |
|----------------------|-----------------------------|
| Plane                | Hawker Demon                |
| Year of Introduction | 1933                        |
| Type                 | Fighter Biplane             |
| Engine               | V-12 Rolls-Royce Kestrel IB |
| Service Ceiling      | 22,800 ft (6,950 m)         |

The Hawker Demon was in development when the Hawker Hart light bomber was released, and it was the Hart's fighter variant. The supercharged Rolls-Royce Kestrel engine gave it speed, while its two Vickers machine guns gave it air superiority.



|                      |                               |
|----------------------|-------------------------------|
| Plane                | Hawker Hunter T7              |
| Year of Introduction | 1954                          |
| Type                 | Jet Fighter                   |
| Engine               | Rolls-Royce Avon 207 Turbojet |
| Service Ceiling      | 50,000 ft (15,240 m)          |

The Hawker Hunter was developed during the Korean War as a jet fighter, and saw lengthy service later as a bomber and reconnaissance aircraft. It was exported to a number of countries, including Lebanon, where it remained in service into the second decade of the 21st century.



|                      |                         |
|----------------------|-------------------------|
| Plane                | Hawker Hurricane Mk.1   |
| Year of Introduction | 1937                    |
| Type                 | Fighter Aircraft        |
| Engine               | V-12 Rolls-Royce Merlin |
| Service Ceiling      | 36,000 ft (10,970 m)    |

The Hawker Hurricane was the most widely produced of Britain's fighter aircraft during World War II. Alongside the Supermarine Spitfire, the Hurricane was responsible for victory in the air over Britain.



|                      |                            |
|----------------------|----------------------------|
| Plane                | Hawker Hind                |
| Year of Introduction | 1935                       |
| Type                 | Light Bomber Biplane       |
| Engine               | V-12 Rolls-Royce Kestrel V |
| Service Ceiling      | 26,400 ft (8,050 m)        |

The Hawker Hind was produced in the years between World I and World War II. It was designed as a variant to the Hawker Hart bomber, which had been released four years before the Hind.

|                      |                             |
|----------------------|-----------------------------|
| Plane                | Hawker Sea Hurricane Mk IIB |
| Year of Introduction | 1937                        |
| Type                 | Fighter Aircraft            |
| Engine               | V-12 Rolls-Royce Merlin     |
| Service Ceiling      | 36,000 ft (10,970 m)        |

The Sea Hurricane Mk IIB was a development of the Mk IIA and was modified for use aboard CAMS ships. CAMS was an acronym for catapult-and-armed-merchantman, and although the ships were Merchant Marine, the aircraft were piloted by RAF crew.



|                      |                             |
|----------------------|-----------------------------|
| Plane                | Hawker Sea Fury T.20        |
| Year of Introduction | 1947                        |
| Type                 | Fighter Aircraft            |
| Engine               | 18-cyl Bristol Centaurus 18 |
| Service Ceiling      | 35,800 ft (10,910 m)        |

The Sea Fury T.20 began life as a prototype variant of the original Sea Fury. It was originally placed in service in Iraq in 1948.

|                      |                                |
|----------------------|--------------------------------|
| Plane                | Hawker Beechcraft 200          |
| Year of Introduction | 2013 (Cancelled)               |
| Type                 | Light Jet                      |
| Engine               | Williams FJ44-3AP Turbofan x 2 |
| Service Ceiling      | 45,000 ft (14,000 m)           |

The Hawker Beechcraft 200 was a light jet originally called the Beechcraft Premier II in its developmental phase. The aircraft never went into production, and was cancelled in its year of release.



# HAWKER - HINDUSTAN - HISPANO - HONDA HONGDU - HOWARD

As Hawker Aircraft was swallowed up by Armstrong Siddeley and the name faded, other names also found themselves faced with survival through merger or collaboration. One of those aircraft manufacturers was Hindustan Aeronautics Limited, which began life in India in 1940. Known as HAL, the company built South Asia's first military aircraft and now has seven manufacturing plants throughout India. The company's long history of collaborative projects includes relationships with names such as Rolls-Royce, Dornier, IAI, Sukhoi, Dassault, Tupolev and many others. Hispano Aviación began life as a privately owned car and aircraft parts manufacturer in Seville, Spain, and was taken over by Franco's nationalist forces in 1939. The entity produced the Hispano HA-100 and 200 jet trainers and was eventually taken over by CASA in 1972. The Honda Aircraft Company was established by the Honda Motor Company to develop a prototype jet (the HondaJet) in 2006. The HondaJet was certified by the FAA in 2015. The Hongdu Aviation Industry (Group) Corporation began life as the China Nanchang Aircraft Manufacturing Corporation in 1951. Today, the company produces aircraft from its Jiangxi province manufacturing facility. The USA's Howard Aircraft Corporation was established in the 1930s in Chicago, initially producing civil aircraft. During World War II, the company manufactured the DGA-15 as a naval air ambulance, as well as the DGA 18 trainer. Howard ceased operating in 1944.



|                      |                             |
|----------------------|-----------------------------|
| Plane                | Howard DGA-6                |
| Year of Introduction | 1934                        |
| Type                 | Racing Aircraft             |
| Engine               | Pratt & Whitney Wasp Radial |
| Service Ceiling      | 22,000 ft (6,706 m)         |

The Howard DGA-6 was a specifically designed racing aircraft developed for competition in the 1935 Bendix Trophy. The aircraft was piloted by Ben Howard, who emerged victorious.



|                      |                                |
|----------------------|--------------------------------|
| Plane                | Hawker Sea Fury FB.11 Argonaut |
| Year of Introduction | 1945                           |
| Type                 | Fighter Aircraft               |
| Engine               | 18-cyl Bristol Centaurus 18    |
| Service Ceiling      | 35,800 ft (10,910 m)           |

The Hawker Sea Fury was feted as one of the fastest ever single engined piston-driven aircraft. A number of naval variants were introduced in its lifetime.



|                      |                                     |
|----------------------|-------------------------------------|
| Plane                | Hispano Aviación HA-1112-MIL Buchon |
| Year of Introduction | 1954                                |
| Type                 | Fighter Aircraft                    |
| Engine               | V-12 Rolls-Royce Merlin 500/45      |
| Service Ceiling      | 32,152 ft (9,800 m)                 |

The HA-1112-MIL was the final variant of the HA-1112 model. Produced initially as a license-built Messerschmitt Bf 109G in 1942, the model's engine was originally a Daimler-Benz DB 605A.



|                      |                                  |
|----------------------|----------------------------------|
| Plane                | Hawker Siddeley AV-8C Harrier    |
| Year of Introduction | 1969                             |
| Type                 | V/STOL 'Jump' Jet                |
| Engine               | Rolls-Royce Pegasus 103 Turbofan |
| Service Ceiling      | 51,200 ft (15,600 m)             |

The Hawker AV-8C Harrier was a development of the AV-8A Harrier, which was designed for deployment by the US Marine Corps. A total of 110 AV-8C models were built.



|                      |                               |
|----------------------|-------------------------------|
| Plane                | Hongdu K-8E                   |
| Year of Introduction | 1994                          |
| Type                 | Intermediate Jet Trainer      |
| Engine               | Garrett TFE731-2A-2A Turbofan |
| Service Ceiling      | 42,651 ft (13,000 m)          |

The Hongdu K-8 is also known as the Hongdu JL-8 or the Nanchang JL-8. The K-8 (Karakorum 8) is specifically designed for use by the Pakistan Air Force.



|                      |                         |
|----------------------|-------------------------|
| Plane                | Honda HA-420 HondaJet   |
| Year of Introduction | 2016                    |
| Type                 | Business Jet            |
| Engine               | GE Honda HF120 Turbofan |
| Service Ceiling      | 43,000 ft (13,105 m)    |

The HondaJet was Honda's first aircraft, and it was designed and manufactured in North Carolina, USA. The aircraft's fuselage is constructed from composite material.



|                      |                                   |
|----------------------|-----------------------------------|
| Plane                | Hispano Aviación HA-200D Saeta    |
| Year of Introduction | 1955                              |
| Type                 | Jet Trainer                       |
| Engine               | Turbomeca Marboré VI Turbojet x 2 |
| Service Ceiling      | 42,650 ft (13,000 m)              |

The HA-200 Saeta was designed initially as a jet trainer and was later developed as an attack aircraft known as the Super Saeta. The model saw active service in the 1970s during the Western Sahara War.



# ILYUSHIN

Sergey Ilyushin founded the Ilyushin Design Bureau in 1933 under the direct orders of the USSR's People's Commissar of Heavy Industry. A large number of military aircraft were initially produced, and included the I-21 fighter, the Sturmovik I-21 ground-attack aircraft and the DB-3 long range bomber. In the 1940s, an even larger complement of military aircraft arrived, as well as the Il-12 transport aircraft, the Il-32 cargo glider and the Il-18 Clam prototype airliner. As the Cold War continued, more attack aircraft, bombers and transports were produced, alongside the Crate and Coot airliners. Ilyushin models also reached supersonic status with the Il-54 Blowlamp prototype in 1955. Following the end of the Cold War and the dismantling of the Berlin Wall, Aviation Industries Ilyushin was established as a subsidiary of the design bureau, while a finance company subsidiary provided monetary services for a several other manufacturers. Over its existence, Ilyushin produced numerous aircraft suited for a variety of roles, and it became part of the newly established United Aircraft Corporation at the turn of the 21st century. Other aircraft manufacturers in the group include Mikoyan, Tupolev, Irkut, Yakovlev and Sukhoi.



|                      |  |
|----------------------|--|
| Plane                | Ilyushin IL-38N                        |
| Year of Introduction | 1971                                   |
| Type                 | Maritime Patrol Aircraft               |
| Engine               | Ivchenko/Progress AI-20M Turboprop x 4 |
| Service Ceiling      | 36,089 ft (11,000 m)                   |

Known by the NATO reporting name of Dolphin, the Ilyushin IL-38N was developed as a replacement for the IL-18 transport aircraft. The model is used in anti-submarine warfare as well as maritime reconnaissance.



|                      |                               |
|----------------------|-------------------------------|
| Plane                | Ilyushin IL-20M               |
| Year of Introduction | 1957                          |
| Type                 | Reconnaissance Aircraft       |
| Engine               | Ivchenko AI-20M Turboprop x 4 |
| Service Ceiling      | 38,714 ft (11,800 m)          |

Known in NATO terms as the Coot, the Ilyushin IL-20M was a long loved model that was in production for nearly 30 years. One of its later variants was equipped with ELINT radar reconnaince capabilities.



|                      |                            |
|----------------------|----------------------------|
| Plane                | Ilyushin IL-76TD           |
| Year of Introduction | 1974                       |
| Type                 | Strategic Airlifter        |
| Engine               | Soloviev D-30 Turbofan x 4 |
| Service Ceiling      | 42,700 ft (13,000 m)       |

The multi-purpose Ilyuishin IL-76TD is a civil variant of the military IL-76. It was designed to open up the delivery of heavy machinery to remote areas that were poorly serviced by road or rail.



|                      |                               |
|----------------------|-------------------------------|
| Plane                | Ilyushin IL-18W               |
| Year of Introduction | 1957                          |
| Type                 | Airliner                      |
| Engine               | Ivchenko AI-20M Turboprop x 4 |
| Service Ceiling      | 38,714 ft (11,800 m)          |

The IL-18W became one of the USSR's most popular and durable airliners throughout the 1950s and into the 1980s. The aircraft's reputation has seen it continue in service today in a military capacity.



|                      |                              |
|----------------------|------------------------------|
| Plane                | Ilyushin IL-86               |
| Year of Introduction | 1980                         |
| Type                 | Wide Body Airliner           |
| Engine               | Kuznetsov NK-86 Turbofan x 4 |
| Service Ceiling      | Data Unavailable             |

The IL-86 went directly into service as an airliner without a dedicated prototype having been built. The two inaugural IL-86 aircraft were used for testing purposes.



|                      |                                   |
|----------------------|-----------------------------------|
| Plane                | Ilyushin IL-78                    |
| Year of Introduction | 1984                              |
| Type                 | Aerial Refuelling Tanker          |
| Engine               | Aviadvigatel D-30 KP Turbofan x 4 |
| Service Ceiling      | 39,370 ft (12,000 m)              |

The IL-78 was an upgrade of the IL-76, and the model became part of a large regiment of aerial refuelling tankers. Today, the regiment is known as the 203rd Orlovski and is based at Ryazan Oblast's Dyagilevo Air Force Base in Western Russia.



|                      |                                    |
|----------------------|------------------------------------|
| Plane                | Ilyushin IL-76MD                   |
| Year of Introduction | 1974                               |
| Type                 | Strategic Airlifter                |
| Engine               | Aviadvigatel PS-90-76 Turbofan x 2 |
| Service Ceiling      | 42,700 ft (13,000 m)               |

The Ilyushin IL-76MD was a model in the IL-76 line. It was one of a number of models that replaced the Antonov AN-12, and was designed to provide airlifting duties in remote areas.



|                      |                         |
|----------------------|-------------------------|
| Plane                | Ilyushin IL-96-300      |
| Year of Introduction | 1992                    |
| Type                 | Passenger Airliner      |
| Engine               | Aviadvigatel PS-90A x 4 |
| Service Ceiling      | 43,000 ft (13,100 m)    |

The IL-96-300 is the first variant of the IL-96. The inaugural model began service with Aeroflot, and several later special designs were produced as VIP aircraft for Vladimir Putin and Dmitry Medvedev.



# HUNTING PERCIVAL - ISRAEL AEROSPACE

Hunting Percival began life as the Percival Aircraft Co. in 1933, becoming Percival Aircraft Limited three years later. Early aircraft were designed as light trainers, which would develop over time into the BAC 1-11 airliner. In 1944, the company was acquired by the Hunting Group, and it became Hunting Percival Aircraft and later Hunting Aircraft in the following decade. In 1960, Hunting Aircraft became part of BAC. Israel Aerospace Industries was first established as Bedek Aviation under Israel's Ministry of Defence in 1953, producing its first aircraft in 1959 as the French designed Fouga Magister. The First IAI designed aircraft arrived in 1969 and was the IAI Arava STOL transport, which had been in development for three years. In 1997, IAI produced the IAI Galaxy, which became part of the sales deal when Gulfstream purchased IAI's Galaxy Aerospace subsidiary in 2001. Today, Israel Aerospace Industries designs and builds fighter and civil aircraft, as well as drones, avionics systems, missiles and space systems.



|                      |  |
|----------------------|--|
| Plane                | IAI Arava                                    |
| Year of Introduction | 1972   |
| Type                 | Utility Transport Aircraft                   |
| Engine               | Pratt & Whitney Canada PT6A-34 Turboprop x 2 |
| Service Ceiling      | 25,000 ft (7,620 m)                          |

The IAI Arava was the first IAI produced aircraft and was designed in both military and civilian variants. The model was not released in great numbers, and most models were sold to Asia, Africa and Central /South America.



|                      |   |
|----------------------|---|
| Plane                | Percival / BAC Jet Provost T3A                      |
| Year of Introduction | 1955  |
| Type                 | Jet Trainer   |
| Engine               | Armstrong Siddeley Viper Mk-102 or Mk -202 Turbojet |
| Service Ceiling      | 36,750 ft (11,200 m)                                |

The Provost T3A was a variant of the Jet Provost trainer, which was in service with the RAF between 1955 and 1993. The T3A was equipped with advanced avionics.



|                      |                                 |
|----------------------|---------------------------------|
| Plane                | IAI Lavi                        |
| Year of Introduction | 1986 (Testing Only)             |
| Type                 | Jet Fighter                     |
| Engine               | Pratt & Whitney PW1120 Turbofan |
| Service Ceiling      | 50,000 ft (15,240 m)            |

The IAI Lavi was designed in the early 1980s, but the cost was prohibitive in the eyes of the public. During the aircraft's flight testing regime, the Lavi project was cancelled and did not survive beyond 1987.



|                      |  |
|----------------------|--|
| Plane                | IAI-1126 Galaxy                          |
| Year of Introduction | 1999                                     |
| Type                 | Business Jet                             |
| Engine               | Pratt & Whitney Canada PW306A Turbofan x |
| Service Ceiling      | 2  |

The IAI-1126 Galaxy was originally designed and built by Israel Aircraft Industries's Gulfstream subsidiary. It became the Gulfstream G200 in 2001 when the Gulfstream line was sold.



|                      |   |
|----------------------|---|
| Plane                | Percival Mew Gull                                 |
| Year of Introduction | 1934  |
| Type                 | Racing Monoplane                                  |
| Engine               | 6-cyl de Havilland Gipsy Six or Napier Javelin IA |
| Service Ceiling      | Data Unavailable                                  |

The Percival Mew Gull was a wooden racing monoplane designed to set new speed records. The low wing monoplane did just that throughout the later 1930s, and was only stopped by the advent of World War II in 1939.

|                      |                                    |
|----------------------|------------------------------------|
| Plane                | IAI Kfir C2                        |
| Year of Introduction | 1976                               |
| Type                 | Multi Role Combat Aircraft         |
| Engine               | General Electric J-79-J1E Turbojet |
| Service Ceiling      | 58,000 ft (17,680 m)               |

The design of the IAI Kfir was based on the airframe of the Dassault Mirage 5. The Kfir C2 variant was released with improved aerodynamics, and its General Electric engine was actually built by IAI.



|                      |                                 |
|----------------------|---------------------------------|
| Plane                | Percival Proctor IV             |
| Year of Introduction | 1939                            |
| Type                 | Trainer/Communications Aircraft |
| Engine               | De Havilland Gipsy Queen II     |
| Service Ceiling      | 14,000 ft (4,265 m)             |

The Percival Proctor was designed at the beginning of World War II to function in a training and communications capacity. Variants of the Proctor had a seating capacity of three or four.



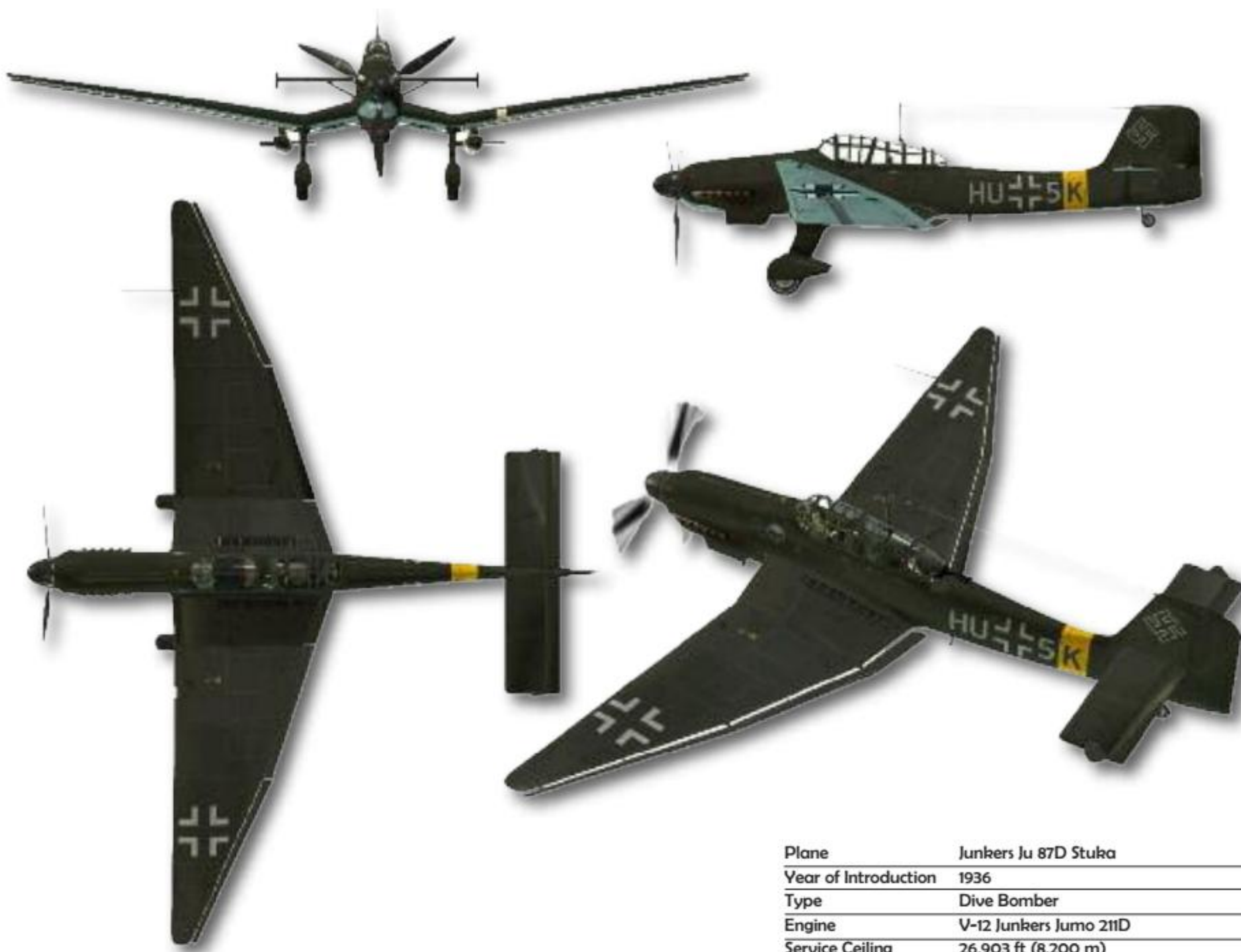
|                      |                          |
|----------------------|--------------------------|
| Plane                | Percival P.56 Provost    |
| Year of Introduction | 1953                     |
| Type                 | Trainer Monoplane        |
| Engine               | 9-cyl Alvis Leonides 126 |
| Service Ceiling      | 25,000 ft (7620 m)       |

The Percival P56 Provost was designed to replace the earlier Percival Prentice. It was the last of the piston-engined trainers operated by Britain's RAF.



# JUNKERS - KLEMM

Junkers was originally a boiler and radiator manufacturer, established by Hugo Junkers in Germany in 1895. Moving into aircraft design in the early 20th century, Junkers produced iconic Germany military aircraft that were used extensively during World War I. The company was moved to Russia following the end of the war, and returned to Germany after 1926 to release the first of many successful Luftwaffe aircraft. During World War II, the company concentrated on producing the Ju 52, Ju 90 and the Ju 88 bomber, all of which were renowned models. Junkers continued after the war, and eventually became part of the MBB joint venture in 1965. By 1969, the entity dropped the Junkers name. Klemm was also a German aircraft manufacturer, established in 1926 to build light but sturdy aircraft that were capable of long distance touring. In 1928, a Klemm L.20 circumnavigated the world, while a Klemm L.26 took Elly Beinhorn from Europe to Australia in 1931. The company produced a number of aircraft for use in World War II, and was acquired by Bölkow in 1959.



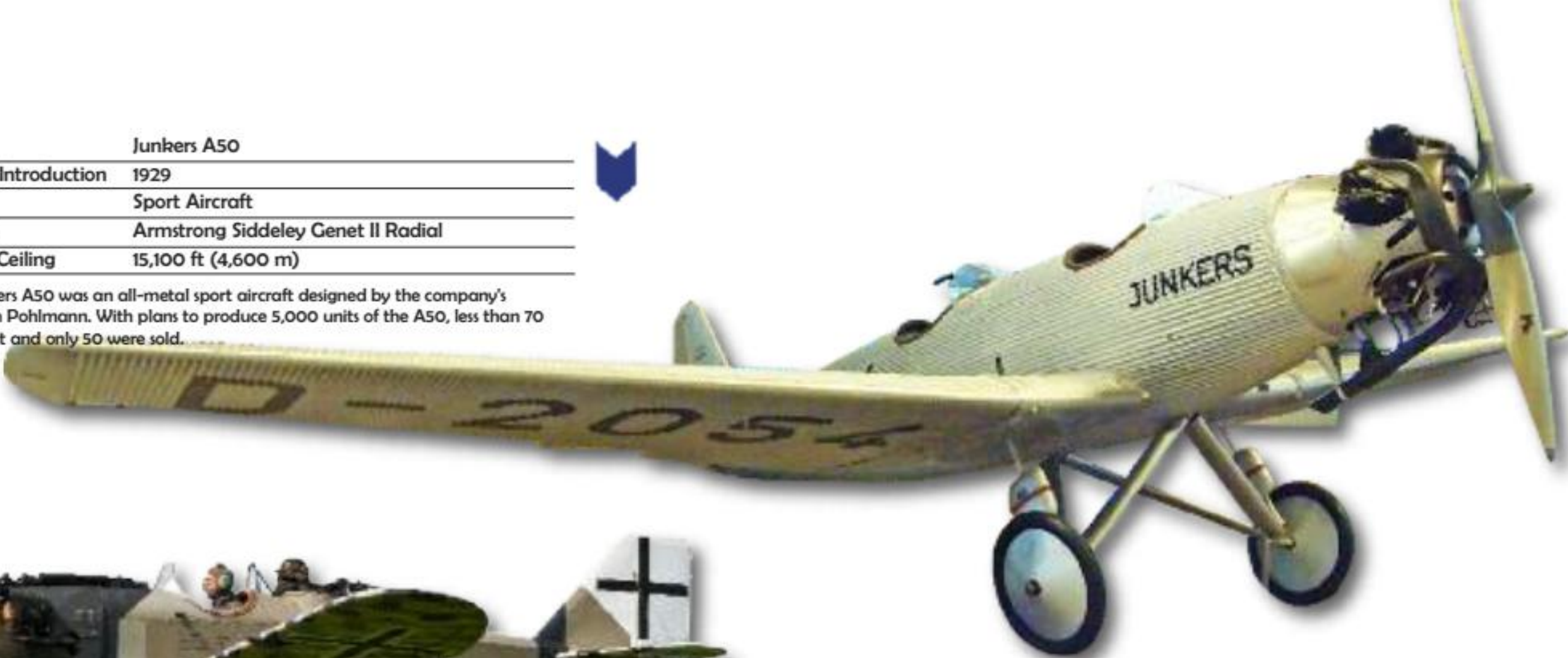
|                      |                        |
|----------------------|------------------------|
| Plane                | Junkers Ju 87D Stuka   |
| Year of Introduction | 1936                   |
| Type                 | Dive Bomber            |
| Engine               | V-12 Junkers Jumo 211D |
| Service Ceiling      | 26,903 ft (8,200 m)    |

The Stuka dive bomber first saw action during the Spanish Civil War, and was later a significant ground attack aircraft during World War II. The aircraft had wailing sirens fitted to its gear legs as a means of inflicting both physical and psychological damage.



|                      |                                    |
|----------------------|------------------------------------|
| Plane                | Junkers A50                        |
| Year of Introduction | 1929                               |
| Type                 | Sport Aircraft                     |
| Engine               | Armstrong Siddeley Genet II Radial |
| Service Ceiling      | 15,100 ft (4,600 m)                |

The Junkers A50 was an all-metal sport aircraft designed by the company's Hermann Pohlmann. With plans to produce 5,000 units of the A50, less than 70 were built and only 50 were sold.



|                      |                         |
|----------------------|-------------------------|
| Plane                | Junkers CL1             |
| Year of Introduction | 1917                    |
| Type                 | Ground Attack Monoplane |
| Engine               | Mercedes D.IIIa         |
| Service Ceiling      | 19,700 ft (6,000 m)     |

Originally designed as the Junkers J 8, the Junkers CL1 was a monoplane destined for deployment as a ground attack aircraft during World War I.



|                      |                            |
|----------------------|----------------------------|
| Plane                | Klemm L.25-1A              |
| Year of Introduction | 1928                       |
| Type                 | Sport / Training Monoplane |
| Engine               | Salmson AD.9               |
| Service Ceiling      | 15,748 ft (4,800 m)        |

The Klemm L25-1A was built as a variant to the L25, which was later designated the Klemm Kl 25. A number of the models took part in international sport competitions to achieve regular success.

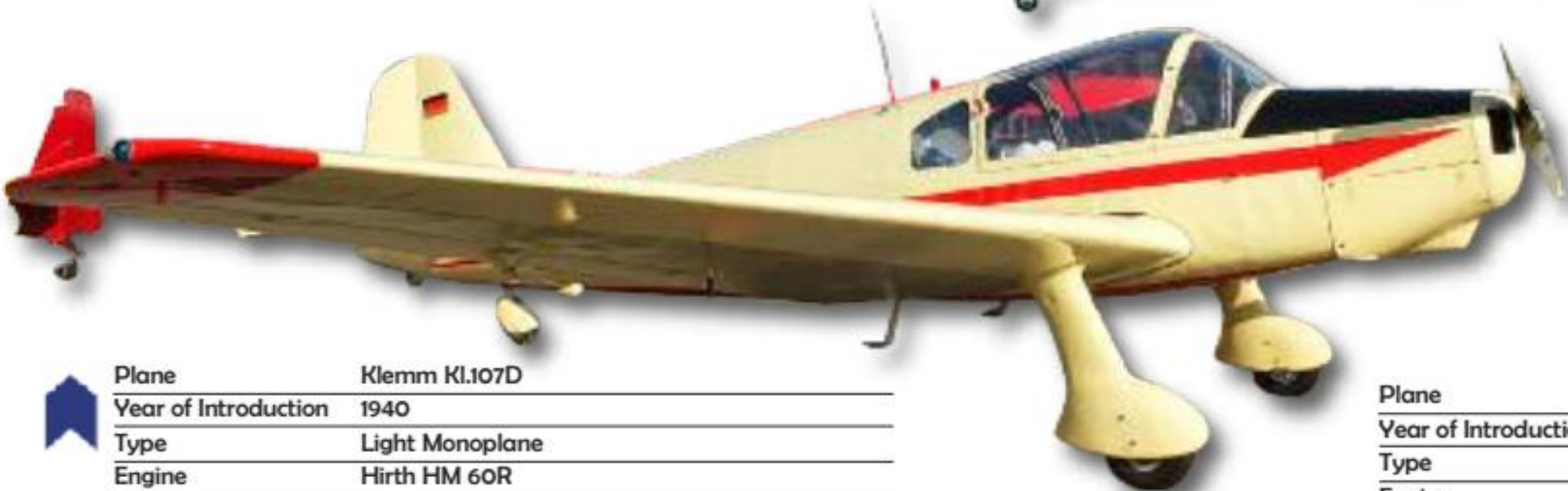
|                      |                                   |
|----------------------|-----------------------------------|
| Plane                | Junkers Ju 52                     |
| Year of Introduction | 1931                              |
| Type                 | Transport Aircraft                |
| Engine               | Pratt & Whitney R-1690 Hornet x 3 |
| Service Ceiling      | 11,150 ft (3,400 m)               |

The Junkers Ju 52 was originally a single-engined design, but it was mainly produced in a trimotor configuration. It was a popular military and civilian transport aircraft in Germany during the 1930s and 1940s.



|                      |                                  |
|----------------------|----------------------------------|
| Plane                | Klemm L.25 d                     |
| Year of Introduction | 1933                             |
| Type                 | Sport Monoplane                  |
| Engine               | Siemens Sh 13 a or Hirth HM 60 R |
| Service Ceiling      | 15,748 ft (4,800 m)              |

The Klemm L.25 d variants were part of the larger L.25 line. The original model was powered by a Salmson AD.9 engine, with the 'd' variants featuring either a Siemens or a Hirth engine.



|                      |                     |
|----------------------|---------------------|
| Plane                | Klemm Kl.107D       |
| Year of Introduction | 1940                |
| Type                 | Light Monoplane     |
| Engine               | Hirth HM 60R        |
| Service Ceiling      | 18,200 ft (5,550 m) |

The Klemm Kl.107D was a four-seat variant of the Klemm Kl.107. The model became part of the Bölkow range as the Bölkow Bo 207.



|                      |                          |
|----------------------|--------------------------|
| Plane                | Klemm Kl.35              |
| Year of Introduction | 1935                     |
| Type                 | Trainer / Sport Aircraft |
| Engine               | 4-cyl Hirth HM 60R       |
| Service Ceiling      | 14,270 ft (4,350 m)      |

The Klemm Kl.35 was designed to succeed the popular Kl.25. It sported the engine and low-wing configuration of its predecessor, and was powered by a succession of Hirth engines.



# KOOLHOVEN - KOREA AEROSPACE - LAKE - LET KUNOVICE

N.V. Koolhoven was established in 1926 in the Netherlands. It became the country's second largest aircraft manufacturer behind Fokker, and was destroyed during the Blitzkrieg in 1940. Landmark models included the FK-41, FK-50 and FK-58. Korea Aerospace Industries began life as a joint venture between Daewoo Heavy Industries, Hyundai Space & Aircraft and Samsung Aerospace. Since its inception, the entity has responded to Korean government requirements for certain types of aircraft, including a 90 seat turboprop airliner due for release before 2020. Lake Aircraft was a USA based amphibious aircraft manufacturer. The company has changed hands several times and now concentrates on making parts for its existing aircraft. Let Kunovice is a manufacturer of civil aircraft in Kunovice, Czech Republic. Known as Let, the company began manufacturing aircraft in the 1930s as a Czechoslovakian government entity, and produced Yaklovov aircraft under license. Today, the Ural Mining & Metallurgical Company owns 51 percent of Let.



|                      |                                     |
|----------------------|-------------------------------------|
| Plane                | Koolhoven F.K.51                    |
| Year of Introduction | 1935                                |
| Type                 | Training Biplane                    |
| Engine               | 9-cyl Armstrong Siddeley Cheetah IX |
| Service Ceiling      | 18,370 ft (5,600 m)                 |

Koolhoven's F.K.51 aircraft was designed as a trainer to be used in the Netherlands and the Dutch East Indies. A few were secretly sold to the Republican government of Spain during the Spanish Civil War, and were used as light bombers.



|                      |  |
|----------------------|--|
| Plane                | KAI T-50 Golden Eagle                    |
| Year of Introduction | 2005                                     |
| Type                 | Advanced Trainer / Light Combat Aircraft |
| Engine               | General Electric F404 Turbofan           |
| Service Ceiling      | 48,000 ft (14,630 m)                     |

KAI's T-50 Golden Eagle was developed by KAI in association with Lockheed Martin. Its maiden flight took place in 2002, and it was released for active service in 2005.



|                      |  |
|----------------------|--|
| Plane                | Let L-410 Turbolet                         |
| Year of Introduction | 1969                                       |
| Type                 | Short Range Transport Aircraft             |
| Engine               | Walter M601E Turboprop and Pratt & Whitney |
| Service Ceiling      | Canada PT6A-27 x 2                         |

The initial prototype and early production models of the Let L-410 Turbolet were powered by the Walter M601 engine as a result of delays in the delivery of the model's intended Pratt & Whitney Canada engines.



|                      |                           |
|----------------------|---------------------------|
| Plane                | Lake LA-4-200 Buccaneer   |
| Year of Introduction | 1949                      |
| Type                 | Light Amphibious Aircraft |
| Engine               | Avco Lycoming IO-360-B1A  |
| Service Ceiling      | 14,700 ft (4 480 m)       |

The Lake Buccaneer was originally developed as the Colonial C-1 Skimmer as a two-seat light amphibious aircraft. The Buccaneer was a four-seat model.



|                      |                          |
|----------------------|--------------------------|
| Plane                | Let L-200 Morava         |
| Year of Introduction | 1957                     |
| Type                 | Light Passenger Aircraft |
| Engine               | 6-cyl Walter M337 x 2    |
| Service Ceiling      | 18,700 ft (5,700 m)      |

The Let-200 Morava went into popular service with the USSR's Aeroflot as an air taxi. The model remained popular with Aeroflot until the USSR decided to design and produce its own similar aircraft.

|                      |                                |
|----------------------|--------------------------------|
| Plane                | KAI KT-1 Woongbi               |
| Year of Introduction | 2000                           |
| Type                 | Basic Trainer                  |
| Engine               | Pratt & Whitney Canada PT6A-62 |
| Service Ceiling      | 38,000 ft (11,580 m)           |

The KAI KT-1 Woongbi was designed as a Korea's first indigenously designed and built aircraft. A number of aircraft have been exported to Indonesia, and plans are underway for further sales to countries in Southeast Asia and Central America.



# LEARJET

Bill Lear introduced the world to the concept of private luxury air travel in 1964, when the first Learjet 23 was delivered to its first customer. The aircraft's design was based on the Swiss American Aircraft Corporation's P-16, and was followed by subsequent numerical models over the ensuing two years until the company changed its name to Lear Jet Industries Inc. In 1967, the company was acquired by the Gates Rubber Company. By the 1970s, Learjets were in service as luxury business jets around the world, and the end of the decade heralded the arrival of the Model 54 range, which entered the 1980s by setting new climbing records for its class. Learjet was acquired by Bombardier Aerospace in 1990, and models were released as the Bombardier Learjet brand. Also in 1990, the Learjet 60 was released, followed by the Learjet 45 in 1995. The company then announced its proposed Learjet 85, which was to be built entirely from composite materials, but the project was cancelled in 2007.



|                      |                              |
|----------------------|------------------------------|
| Plane                | Learjet 45                   |
| Year of Introduction | 1998                         |
| Type                 | Business Jet                 |
| Engine               | Honeywell TFE731-20 Turbofan |
| Service Ceiling      | 51,000 ft (15,545 m)         |

The mid sized Learjet 45 business jet was produced after Learjet was acquired by Bombardier. The aircraft's cockpit was equipped with state-of-the-art Honeywell avionics.



|                      |                          |
|----------------------|--------------------------|
| Plane                | Learjet 55 Longhorn      |
| Year of Introduction | 1981                     |
| Type                 | Business Jet             |
| Engine               | Garrett TFE731-3A-2B x 2 |
| Service Ceiling      | 51,000 ft (15,545 m)     |

The Learjet 55 Longhorn was designed and manufactured during the Gates Learjet years. It had a larger cabin than the Learjets in service at the time, and earned the Longhorn name as a result of its unique NASA developed winglets.



|                      |  |
|----------------------|--|
| Plane                | Learjet Model 35A                            |
| Year of Introduction | 1976   |
| Type                 | Multi Role Business Jet / Military Transport |
| Engine               | Garrett TFE731-2-2B Turbofan x 2             |
| Service Ceiling      | 45,000 ft (13,700 m)                         |

The Learjet Model 35A was a variant of the Model 35, produced three years after the original model was released. When used in US military service, the model is known as the C-21A.



|                      |                                    |
|----------------------|------------------------------------|
| Plane                | Learjet 40                         |
| Year of Introduction | 2004                               |
| Type                 | Light Business Jet                 |
| Engine               | Honeywell TFE731-20AR Turbofan x 2 |
| Service Ceiling      | 51,000 ft (15,545 m)               |

Design of the Learjet 40 was based on the Learjet 45, but with a fuselage that was 60 centimetres shorter than its larger sibling. The model 40 superseded the Learjet 31A as a light business jet.



|                      |                                       |
|----------------------|---------------------------------------|
| Plane                | Learjet 25                            |
| Year of Introduction | 1967                                  |
| Type                 | Business Jet                          |
| Engine               | General Electric CJ610-6 Turbojet x 2 |
| Service Ceiling      | 45,000 ft (13,715 m)                  |

The Learjet 25 was similar to its Learjet 24 predecessor, but as a longer model, it allowed for an addition three passengers, taking the complement to eight. Later variants were equipped with advanced General Electric engines.



|                      |                                   |
|----------------------|-----------------------------------|
| Plane                | Learjet 75                        |
| Year of Introduction | 2013                              |
| Type                 | Light Business Jet                |
| Engine               | Honeywell TFE731-40BR Turbine x 2 |
| Service Ceiling      | 51,000 ft (15,545 m)              |

The Learjet 70 was designed in anticipation of a recovery in the sales of business jets once the worst of the GFC was over. The model remains in production today.

|                      |                                  |
|----------------------|----------------------------------|
| Plane                | Learjet C-21A                    |
| Year of Introduction | 1973                             |
| Type                 | Military Business Jet            |
| Engine               | Garrett TFE731-2-2B Turbofan x 2 |
| Service Ceiling      | 45,000 ft (13,700 m)             |

The Learjet C-21A is the military variant of the Learjet Model 35 and Model 36. The aircraft has capacity for eight passengers and 1.26m3 of cargo.



# LOCKHEED

The Lockheed Corporation began life in 1912 as the Alco Hydro-Aeroplane Company in San Francisco, USA, but closed its doors after the end of World War I. Allan Loughead and others then established the Lockheed Aircraft Company in Hollywood in 1926 and released the Vega model before ending the decade with 80 different aircraft models. Lockheed subsequently merged with Detroit Aircraft and went into receivership during the Great Depression. A syndicate purchased Lockheed out of receivership, and by 1934 was building on the early reputation of the Loughead brothers and their previously successful Lockheed Vega aircraft. During World War II, the Lockheed Model 14 was the inspiration for the Hudson bomber, but it was the Lockheed P-38 Lightning that became Lockheed's most successful aircraft during the conflict. Following the war, Lockheed designed the L-049 Constellation airliner with TWA, revolutionising passenger airline design. Simultaneously, Lockheed developed the Lockheed P-80 Shooting Star as a military jet fighter, and over the ensuing decades produced some of the USA's most famous military aircraft, including the U-2, the Blackbird and the Nighthawk. In 1995, Lockheed merged with Martin Marietta to form Lockheed Martin. Today, the company is involved in aeronautics, missile design, space systems and advanced aircraft development.



|                      |  |
|----------------------|--|
| Plane                | Lockheed Martin F-16 Fighting Falcon                             |
| Year of Introduction | 1978   |
| Type                 | Supersonic Fighter Aircraft                                      |
| Engine               | General Electric F110-GE-129 or Pratt & Whitney F100-PW-220/220E |
| Service Ceiling      | >50,000 ft (15,240 m)  |

The F-16 Fighting Falcon was a General Dynamics product, and became part of Lockheed Martin when the company acquired General Dynamics. The Fighting Falcon is a multi role fighter designed to operate in all weather conditions.



|                      |                                      |
|----------------------|--------------------------------------|
| Plane                | Lockheed TriStar C2                  |
| Year of Introduction | 1984                                 |
| Type                 | Air-to-Air Tanker                    |
| Engine               | Rolls-Royce RB.211-524B Turbofan x 3 |
| Service Ceiling      | 43,000 ft (13,000 m)                 |

The Lockheed TriStar C2 made up three of nine Lockheed 500 TriStar passenger airliners converted to operate as a military passenger, medical and cargo aircraft. The C2 was part of Britain's No. 216 Squadron.



|                      |                                     |
|----------------------|-------------------------------------|
| Plane                | Lockheed C-130J Super Hercules      |
| Year of Introduction | 1999                                |
| Type                 | Tactical Airlifter                  |
| Engine               | Rolls-Royce AE 2100D3 Turboprop x 4 |
| Service Ceiling      | 28,000 ft (8,615 m)                 |

The C-130J Super Hercules was an upgrade of the C-130 Hercules, and was equipped with a new flight deck, new engines and updated avionics. The aircraft and its predecessor remain in service around the world today, renowned for their STOL properties.



|                      |                                      |
|----------------------|--------------------------------------|
| Plane                | Lockheed TriStar K1                  |
| Year of Introduction | 1984                                 |
| Type                 | Air-to-Air Tanker                    |
| Engine               | Rolls-Royce RB.211-524B Turbofan x 3 |
| Service Ceiling      | 43,000 ft (13,000 m)                 |

Lockheed's TriStar was a variant of the Lockheed 500 TriStar passenger airliner. Only two of the nine variants were K1 tankers, which were deployed with the RAF.



|                      |                                  |
|----------------------|----------------------------------|
| Plane                | Lockheed MC-130H Combat Talon II |
| Year of Introduction | 1980                             |
| Type                 | Military Airlifter               |
| Engine               | Allison T56-A-15 Turboprop x 4   |
| Service Ceiling      | 33,000 ft (10,000 m)             |

The Combat Talon II was designed in response to the Iran hostage crisis, and three Lockheed C-130s were rapidly modified to undertake a rescue attempt. Before the only certified aircraft could be deployed, the situation developed in another direction and the aircraft was not required.



|                      |  |
|----------------------|--|
| Plane                | Lockheed Martin F-22 Raptor              |
| Year of Introduction | 2005                                     |
| Type                 | Stealth Fighter Aircraft                 |
| Engine               | Pratt & Whitney F119-PW-100 Turbofan x 2 |
| Service Ceiling      | >65,000 ft (20,000 m)                    |

The Lockheed Martin F-22 Raptor was designed as an all-weather stealth fighter for the USAF. Lockheed Martin was responsible for constructing the airframe and the majority of the weapons systems, while Boeing provided avionics, wings, training systems and the rear fuselage.



|                      |                                 |
|----------------------|---------------------------------|
| Plane                | Lockheed P-38 Lightning         |
| Year of Introduction | 1941                            |
| Type                 | Fighter Aircraft                |
| Engine               | V-12 Allison V-1710-111/113 x 2 |
| Service Ceiling      | 44,000 ft (13,400 m)            |

The Lockheed P-38 Lightning was known as the 'fork-tailed devil' by Germany's Luftwaffe during World War II. The aircraft was used for a number of roles, including reconnaissance, dive bombing, ground attack, long range escort and night fighting.

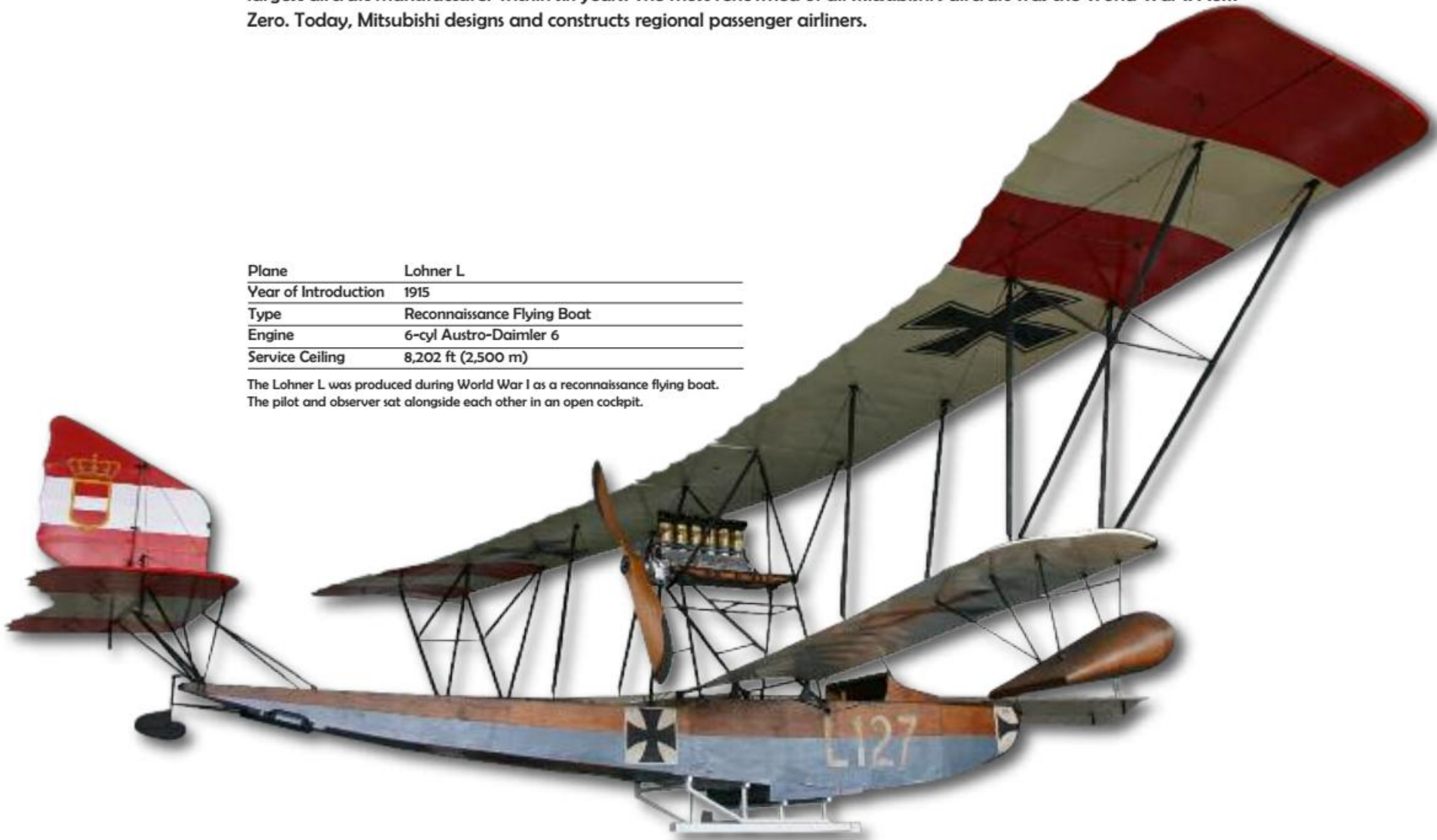


# LOHNER-WERKE - LUSCOMBE - MAULE AIR MITSUBISHI

Lohner-Werke was initially established as coach building company in 19th century Austria, and moved into aircraft manufacturing in 1909. The company's first models were reconnaissance aircraft that became operational during World War I, as well as a flying-boat series that were later adopted by Macchi. Abandoning aircraft after the war, Lohner manufactured aircraft wings during World War II. Luscombe Aircraft was established in the USA in 1933. The first aircraft produced by the company was the Luscombe Model 1, or Phantom. The Luscombe 90 arrived in 1936 and was followed one year later by the Luscombe 50. The company became bankrupt in 1948. Maule Air was established by Belford D. Maule in 1941 as B.D. Maule Co in the USA. Most Maule aircraft became extremely popular with bush pilots due to their rugged construction and low stall speed. The Mitsubishi Aircraft Company was founded in 1920, and became Japan's largest aircraft manufacturer within six years. The most renowned of all Mitsubishi's aircraft was the World War II A6M Zero. Today, Mitsubishi designs and constructs regional passenger airliners.

|                      |                            |
|----------------------|----------------------------|
| Plane                | Lohner L                   |
| Year of Introduction | 1915                       |
| Type                 | Reconnaissance Flying Boat |
| Engine               | 6-cyl Austro-Daimler 6     |
| Service Ceiling      | 8,202 ft (2,500 m)         |

The Lohner L was produced during World War I as a reconnaissance flying boat. The pilot and observer sat alongside each other in an open cockpit.





|                      |                             |
|----------------------|-----------------------------|
| Plane                | Maule M-6-235C Super Rocket |
| Year of Introduction | 1974                        |
| Type                 | Cabin Monoplane             |
| Engine               | 6-cyl Lycoming O-540-J1A5D  |
| Service Ceiling      |                             |

The Maule M-6-235C Super Rocket was a variant of the Maule M-5. The Super Rocket was equipped with a longer wingspan, larger flaps and smaller ailerons. A total of 136 M-6-235C Super Rockets were built.



|                      |                                      |
|----------------------|--------------------------------------|
| Plane                | Mitsubishi F-4EJ                     |
| Year of Introduction | 1960                                 |
| Type                 | Multi Role Supersonic Jet Fighter    |
| Engine               | General Electric J79-GE-17A Turbojet |
| Service Ceiling      | 60,000 ft (18,300 m)                 |

The Mitsubishi F-4EJ is a license-built variant of the McDonnell Douglas F-4 Phantom II. The first of the F-4 Phantoms entered service in the US Navy in 1960.



|                      |  |
|----------------------|--|
| Plane                | Mitsubishi F-2                         |
| Year of Introduction | 2000                                   |
| Type                 | Multi Role Fighter Aircraft            |
| Engine               | General Electric F110-IHI-129 Turbofan |
| Service Ceiling      | 59,000 ft (18,000 m)                   |

The Mitsubishi F-2 was released in 2000 as a derivative of the F-16 Fighting Falcon. It was manufactured in joint cooperation with Lockheed Martin, with 40 percent of production carried out in the USA.



|                      |                      |
|----------------------|----------------------|
| Plane                | Mitsubishi A6M Zero  |
| Year of Introduction | 1940                 |
| Type                 | Fighter Aircraft     |
| Engine               | Nakajima Sakae 12    |
| Service Ceiling      | 32,810 ft (10,000 m) |

The Mitsubishi A6M Zero was one of the most feared of all Japanese fighters during World War II. The Japanese designation for the aircraft was Mitsubishi Navy Type O Carrier Fighter.



|                      |                             |
|----------------------|-----------------------------|
| Plane                | Luscombe 8E Silvaire Deluxe |
| Year of Introduction | After 1937                  |
| Type                 | High Wing Monoplane         |
| Engine               | 4-cyl Continental A85       |
| Service Ceiling      | 17,000 ft (5,182 m)         |

The Luscombe 8E Silvaire Deluxe was a variant of the Luscombe 8. The original model was powered by a Continental C90 engine, while later variants sported a Continental A85.



# MCDONNELL DOUGLAS

McDonnell Douglas was established through the merger of McDonnell Aircraft and the similar Douglas Aircraft Company in 1967. McDonnell Aircraft had been established in 1939 and evolved to produce military fighters that included the F-4 Phantom II among others. The Douglas Aircraft Company had been established in 1921, and the founders of each company had previously worked for Glenn L Martin. Following individual aircraft design and manufacturing success, McDonnell and Douglas were each involved in producing weapons for the fledgling missile industry, but each was encountering problems. Following the merger, the newly created McDonnell Douglas company released a new generation of DC-9 aircraft in the late 1970s, alongside the KC-10 Extender military transport. During the Cold War, the company produced the F-15 Eagle and a number of renowned missiles, and the 1980s heralded the company's involvement in helicopter design. The MD-11 Trijet was built in 1986, as well as regional airliners that included the MD-95. Having competed with Boeing for decades, McDonnell Douglas merged with its giant rival in 1997, and Boeing adopted the company's logo in recognition of its former rival's contribution to 20th century aircraft design.



|                      |  |
|----------------------|--|
| Plane                | McDonnell Douglas F-15E Strike Eagle     |
| Year of Introduction | 1988                                     |
| Type                 | Multi Role Strike Fighter                |
| Engine               | Pratt & Whitney F100-PW-229 Turbofan x 2 |
| Service Ceiling      | 60,000 ft (18,200 m)                     |

Now a Boeing aircraft, the McDonnell Douglas F-15 Strike Eagle is only identifiable from other Eagle models by its fuel tanks and darker camouflage. The aircraft has served in numerous Middle East operations.



|                      |                                    |
|----------------------|------------------------------------|
| Plane                | McDonnell Douglas DC-10-30CF       |
| Year of Introduction | 1973                               |
| Type                 | Cargo/Passenger Transport Aircraft |
| Engine               | General Electric GE CF6-50C        |
| Service Ceiling      | Data Unavailable                   |

The McDonnell Douglas DC-10-30CF was a variant of the DC-10. Only 27 models were built, and the first deliveries were sent to Trans International and Overseas National Airways.



|                      |   |
|----------------------|---|
| Plane                | McDonnell Douglas F/A-18 Hornet           |
| Year of Introduction | 1983                                      |
| Type                 | Multi Role Fighter/Attack Aircraft        |
| Engine               | General Electric F404-GE-402 Turbofan x 2 |
| Service Ceiling      | 50,000 ft (15,240 m)                      |

The F/A-18 Hornet was designed to operate as a carrier capable combat jet able to act as both attack aircraft and fighter. It was designed as an upgrade of Northrop YF-17 of the 1970s.



|                      |  |
|----------------------|--|
| Plane                | McDonnell Douglas MD-11                      |
| Year of Introduction | 1990   |
| Type                 | Wide Body Jet Airliner                       |
| Engine               | Pratt & Whitney PW4460 or GE CF6-80C2D1F x 3 |
| Service Ceiling      | 43,000 ft (13,000 m)                         |

The MD-11 was designed as a medium to long range aircraft that would take the DC-10 to the next level. The three-engined airliner had two underwing engines and a third mounted below the vertical stabiliser.

|                      |                              |
|----------------------|------------------------------|
| Plane                | McDonnell Douglas MD-82      |
| Year of Introduction | 1980                         |
| Type                 | Commercial Jet Airliner      |
| Engine               | Pratt & Whitney JT8D-200 x 2 |
| Service Ceiling      | Data Unavailable             |

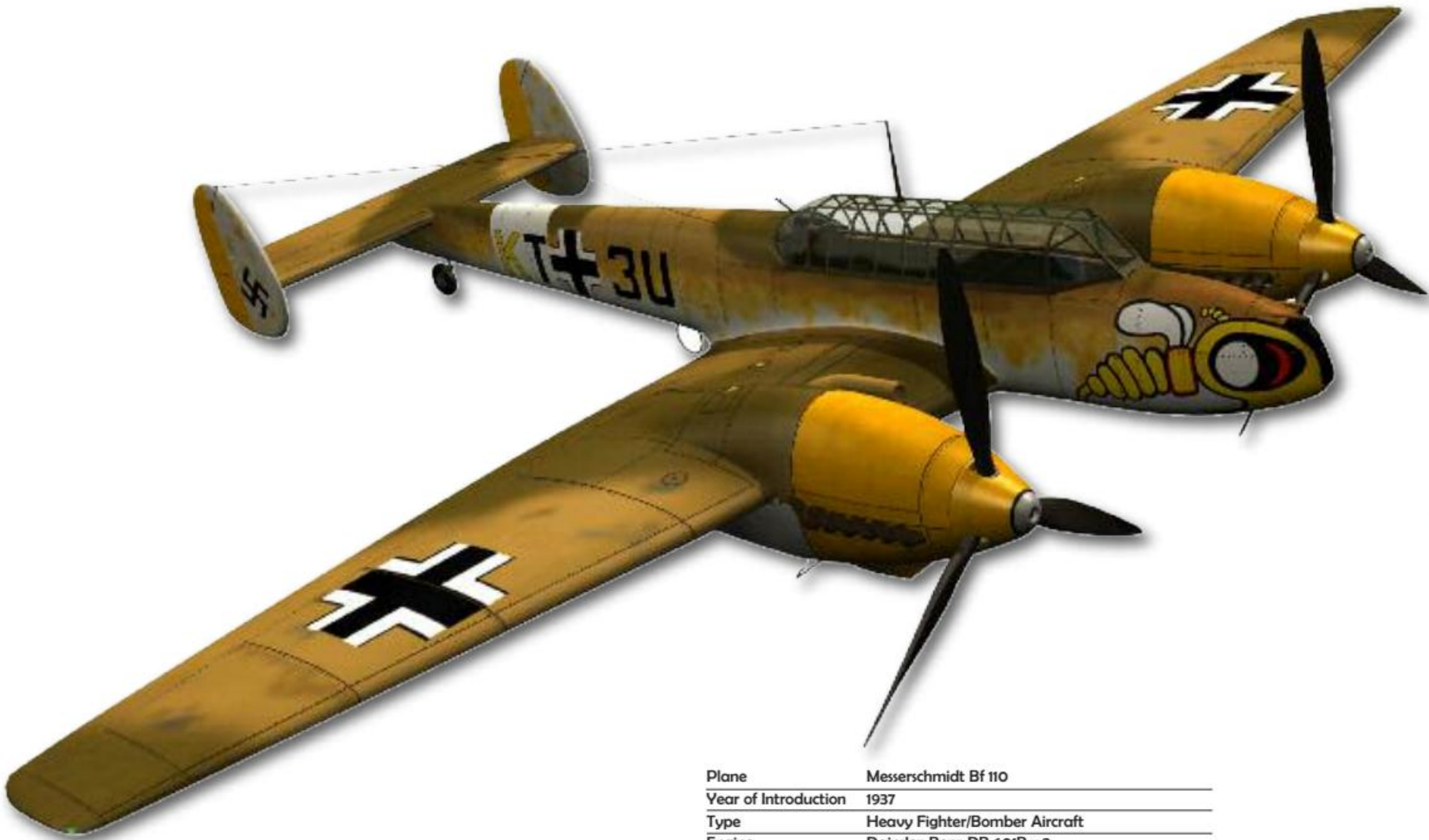
The McDonnell Douglas MD82 was a variant of the MD-80 and MD-81 airliners. It was designed for higher temperature, high altitude airports and was also capable of carrying higher payloads to and from standard altitude airports.





# MESSERSCHMITT - MEYERS - MYASISHCHEV

Messerschmitt AG had its origins during World War I, when Bayerische Flugzeugwerke was established and began assembling Albatros aircraft under license, eventually growing to become one of Bavaria's largest manufacturers. Willy Messerschmitt joined the post-war reformed company in 1927 and eventually took over in 1938 to enter World War II as the Nazi Party's favourite manufacturer. Notable aircraft were the Bf 109 and 110 and the world's first jet fighter - the Me 262. The Meyers Aircraft Company was established in the USA in 1936 and began producing the Meyers OTW biplane trainer for use in World War II. Following the war, the company produced a range of light utility aircraft before being acquired by Rockwell-Standard in 1965. Myasishchev was established as the Myasishchev Experimental Design Bureau in Russia in 1951. The bureau became an integral part of the Russian aerospace industry in the 1950s, and its chief designer, Vladimir Myasishchev, headed TsAGI before establishing his own bureau in 1967.



|                      |                               |
|----------------------|-------------------------------|
| Plane                | Messerschmidt Bf 110          |
| Year of Introduction | 1937                          |
| Type                 | Heavy Fighter/Bomber Aircraft |
| Engine               | Daimler-Benz DB 601B x 2      |
| Service Ceiling      | 35,000 ft (10,500 m)          |

The Messerschmitt Bf 110 was also referred to as the Me 110. It operated as a heavy fighter and a fighter-bomber during World War II.



|                      |                            |
|----------------------|----------------------------|
| Plane                | Myasishchev 3MD            |
| Year of Introduction | 1960                       |
| Type                 | Strategic Bomber           |
| Engine               | Mikulin AM-3A Turbojet x 4 |
| Service Ceiling      | 36,000 ft (11,000 m)       |

The Myasishchev 3MD was a variant of the Myasishchev M-4 Molot. It was designed to carry cruise missiles.



|                      |                      |
|----------------------|----------------------|
| Plane                | Messerschmitt Bf 109 |
| Year of Introduction | 1939                 |
| Type                 | Fighter Aircraft     |
| Engine               | Daimler-Benz DB 601  |
| Service Ceiling      | 39,370 ft (12,000 m) |

The Messerschmitt Bf 109 was one of the most celebrated German fighter aircraft during World War II. It first saw service in the Spanish Civil War and continued as a significant fighter aircraft until the jet age dawned.

|                      |                  |
|----------------------|------------------|
| Plane                | Meyers OTW-160   |
| Year of Introduction | 1936             |
| Type                 | Trainer Biplane  |
| Engine               | Warner Scarab    |
| Service Ceiling      | Data Unavailable |

The acronym OTW stood for 'Out to Win', and the Meyers OTW was designed and manufactured in the USA between 1936 and 1944. It operated as a trainer in numerous civilian training schools.



|                      |                               |
|----------------------|-------------------------------|
| Plane                | Myasishchev M-55              |
| Year of Introduction | 1988                          |
| Type                 | Geophysical Research Aircraft |
| Engine               | Soloviev D-30-V12 x 2         |
| Service Ceiling      | 70,538 ft (21,500 m)          |

The Myasishchev M-55 was designed as a twin engine variant of the Myasishchev M-17 Stratosphera.



|                      |                                   |
|----------------------|-----------------------------------|
| Plane                | Messerschmitt Me 262 Schwalbe     |
| Year of Introduction | 1944                              |
| Type                 | Jet Fighter Aircraft              |
| Engine               | Junkers Jumo 004 B-1 Turbojet x 2 |
| Service Ceiling      | 37,565 ft (11,450 m)              |

The Me 262 was designed as a fighter and fighter bomber, with the former nicknamed the Swallow (Schwalbe) and the latter the Storm Bird. The aircraft was the fastest and most heavily armed model of its era.



|                      |                        |
|----------------------|------------------------|
| Plane                | Myasishchev M-101T     |
| Year of Introduction | 1995                   |
| Type                 | Business Aircraft      |
| Engine               | Walter M601F Turboprop |
| Service Ceiling      | 24,900 ft (7,600 m)    |

The Russian Myasishchev M-101T was built by the Sokol Design Bureau as a Myasishchev design.



|                      |                             |
|----------------------|-----------------------------|
| Plane                | Messerschmitt Bf 108 Taifun |
| Year of Introduction | 1935                        |
| Type                 | Sport Aircraft              |
| Engine               | V-8 Argus As 10C            |
| Service Ceiling      | 20,300 ft (6,200 m)         |

The all-metal Bf 108 Taifun was designed and constructed in the early 1930s. Shortly after its release, the aircraft began setting endurance records.



# MiG

The Mikoyan and Gurevich Design Bureau was established by Artem Mikoyan and Mikhail Gurevich in Russia at the end of World War II. The acronym of the bureau and its aircraft was MiG, with the 'G' remaining regardless of the death of Gurevich in 1976. The bureau's name was changed to the Russian Aircraft Corporation MiG, and its primary role was to design fighter aircraft. The MiG soon became the pin-up fighter aircraft of the Cold War, during which time it was in service in both Korea and China as well as the USSR. Later, the MiG was sent to North Vietnam for use during the Vietnam War. The MiG was also used by a number of Middle Eastern nations. Shares of the Moscow based design bureau were merged with that of a number of other designers in 2006 to form the United Aircraft Corporation. Today, the MiG remains one of the most renowned fighter aircraft developed in the post-World War II years, and its variants continue to develop today.



|                      |                         |
|----------------------|-------------------------|
| Plane                | Mikoyan-Gurevich MiG-15 |
| Year of Introduction | 1949                    |
| Type                 | Jet Fighter Aircraft    |
| Engine               | Klimov VK-1 Turbojet    |
| Service Ceiling      | 50,853 ft (15,500 m)    |

The MiG-15 was a successful fighter aircraft during the Korean War. It had swept wings and was capable of achieving high speeds in reduced drag transonic atmospheres.



|                      |                              |
|----------------------|------------------------------|
| Plane                | Mikoyan-Gurevich MiG-3       |
| Year of Introduction | 1941                         |
| Type                 | Interceptor/Fighter Aircraft |
| Engine               | V-12 Mikulin AM-35A          |
| Service Ceiling      | 39,400 ft (12,000 m)         |

The ACAZ C.2 was a prototype constructed from duralumin. It took off for a 1928 expedition to the Belgian Congo, but never made it out of Belgium.



|                      |                             |
|----------------------|-----------------------------|
| Plane                | Mikoyan MiG-29K             |
| Year of Introduction | 2010                        |
| Type                 | Multi Role Fighter Jet      |
| Engine               | Klimov RD-33MK Turbofan x 2 |
| Service Ceiling      | 57,400 ft (17,500 m)        |

The MiG-29K was designed to operate in all weather situations and a number of military roles. Development began in the late 1980s, and models have a variety of different radar and cockpit types.



|                      |                           |
|----------------------|---------------------------|
| Plane                | Mikoyan-Gurevich MiG-17   |
| Year of Introduction | 1952                      |
| Type                 | Subsonic Fighter Aircraft |
| Engine               | Klimov VK-1F Turbojet     |
| Service Ceiling      | 54,450 ft (16,600 m)      |

The MiG-17 was also produced in China as the Shenyang J-5. The aircraft was developed as an advanced MiG-15 and looked similar to its Korean War predecessor.

|                      |                           |
|----------------------|---------------------------|
| Plane                | Mikoyan MiG-29A           |
| Year of Introduction | 1982                      |
| Type                 | Jet Fighter Aircraft      |
| Engine               | Klimov RD-33 Turbofan x 2 |
| Service Ceiling      | 59,100 ft (18,013 m)      |

The MiG-29A was a downgraded variant of the MiG-29 in response to the requirements of the Warsaw Pact. The downgrade allowed for export of the aircraft to other Warsaw Pact nations.



|                      |                           |
|----------------------|---------------------------|
| Plane                | Mikoyan MiG-29            |
| Year of Introduction | 1982                      |
| Type                 | Jet Fighter Aircraft      |
| Engine               | Klimov RD-33 Turbofan x 2 |
| Service Ceiling      | 59,100 ft (18,013 m)      |

The MiG-29 was in development during the 1970s as a counter measure against the air superiority of the USA developed F-15 Eagle and the F-16 Fighting Falcon. It first went into service in 1982.

|                      |                         |
|----------------------|-------------------------|
| Plane                | Mikoyan-Gurevich MiG-21 |
| Year of Introduction | 1959 (MiG 21F)          |
| Type                 | Jet Fighter Aircraft    |
| Engine               | Tumansky R25-300        |
| Service Ceiling      | 58,400 ft (17,800 m)    |

The MiG-21 was known colloquially as the Balalaika on account if its fuselage shape. The aircraft was a supersonic jet fighter that was developed in a number of variants.





# MILES AIRCRAFT

The origins of Miles Aircraft began when Phillips & Powis Aircraft was established in Britain in the early 1930s. Fred Miles was involved with the company and its founders, and Rolls-Royce bought into Phillips & Powis in 1936. The aircraft produced after that time were branded as Miles models, but the company name was not changed until 1943, when Rolls-Royce's shares were bought and Miles Aircraft Limited was born. The Miles Messenger was a popular model in the 1930s, and aircraft were assembled in a hangar at RAF Long Kesh after components were produced in Banbridge - both facilities were based in Northern Ireland. The company went into receivership in 1947, and Fred Miles then established F.G. Miles Limited and continued to produced Miles branded aircraft. In 1961, F.G. Miles merged with Auster Aircraft Limited to become Beagle-Miles Ltd., and later Beagle Aircraft. A number of subsidiary companies were created and included Miles Electronics, which designed and manufactured flight simulators. In 1975, F.G. Miles was acquired by Hunting.



|                      |                           |
|----------------------|---------------------------|
| Plane                | Miles M.2L Hawk Speed Six |
| Year of Introduction | 1934                      |
| Type                 | Light Monoplane           |
| Engine               | De Havilland Gipsy Six 1F |
| Service Ceiling      | 20,000 ft (6100 m)        |

The Miles M.2L Hawk Speed Six was the fifth variant of the Miles Hawk Major. Only one model was produced.



|                      |                                  |
|----------------------|----------------------------------|
| Plane                | Miles M14A Hawk Trainer III      |
| Year of Introduction | 1937                             |
| Type                 | Trainer Monoplane                |
| Engine               | 4-cyl de Havilland Gipsy Major I |
| Service Ceiling      | 18,000 ft (5,490 m)              |

The Hawk Trainer III was a variant of the Miles M.14A Magister. The trainer was used extensively as a British trainer of Hurricane and Spitfire pilots. The aircraft's advanced training sibling was the Miles Master.



|                      |                                  |
|----------------------|----------------------------------|
| Plane                | Miles M.11 Whitney Straight      |
| Year of Introduction | 1936                             |
| Type                 | Cabin Monoplane                  |
| Engine               | 4-cyl de Havilland Gipsy Major I |
| Service Ceiling      | 18,500 ft (5,640 m)              |

The Miles M.11 Whitney Straight was named after Grand Prix racing driver Whitney Straight. It was equipped with dual controls within its side-by-side cockpit to allow ample room for both pilot and passenger.



|                      |                          |
|----------------------|--------------------------|
| Plane                | Miles M.3A Falcon Major  |
| Year of Introduction | 1935                     |
| Type                 | Cabin Monoplane          |
| Engine               | De Havilland Gipsy Major |
| Service Ceiling      | 15,000 ft (4,572 m)      |

The Miles M.3A Falcon Major was the four-seat variant of the Miles M.3 Falcon. A total of 29 models were produced for private and commercial customers.



|                      |                                  |
|----------------------|----------------------------------|
| Plane                | Miles M.11A Whitney Straight     |
| Year of Introduction | 1936                             |
| Type                 | Cabin Monoplane Trainer          |
| Engine               | 4-cyl de Havilland Gipsy Major I |
| Service Ceiling      | 18,500 ft (5,640 m)              |

The M.11A Whitney Straight was one of several Whitney Straight variants. The aircraft was constructed of wood and was generally powered by a de Havilland Gipsy engine.



|                      |                                  |
|----------------------|----------------------------------|
| Plane                | Miles M.14A Magister             |
| Year of Introduction | 1937                             |
| Type                 | Monoplane Trainer                |
| Engine               | 4-cyl de Havilland Gipsy Major I |
| Service Ceiling      | 18,000 ft (5,490 m)              |

The M.14A Magister was colloquially known as the 'Maggie'. It was a development of the civilian Hawk range, and was generally used to train Hurricane and Spitfire pilots.



|                      |                          |
|----------------------|--------------------------|
| Plane                | Miles M.3 Falcon         |
| Year of Introduction | 1934                     |
| Type                 | Cabin Monoplane          |
| Engine               | De Havilland Gipsy Major |
| Service Ceiling      | 15,000 ft (4,572 m)      |

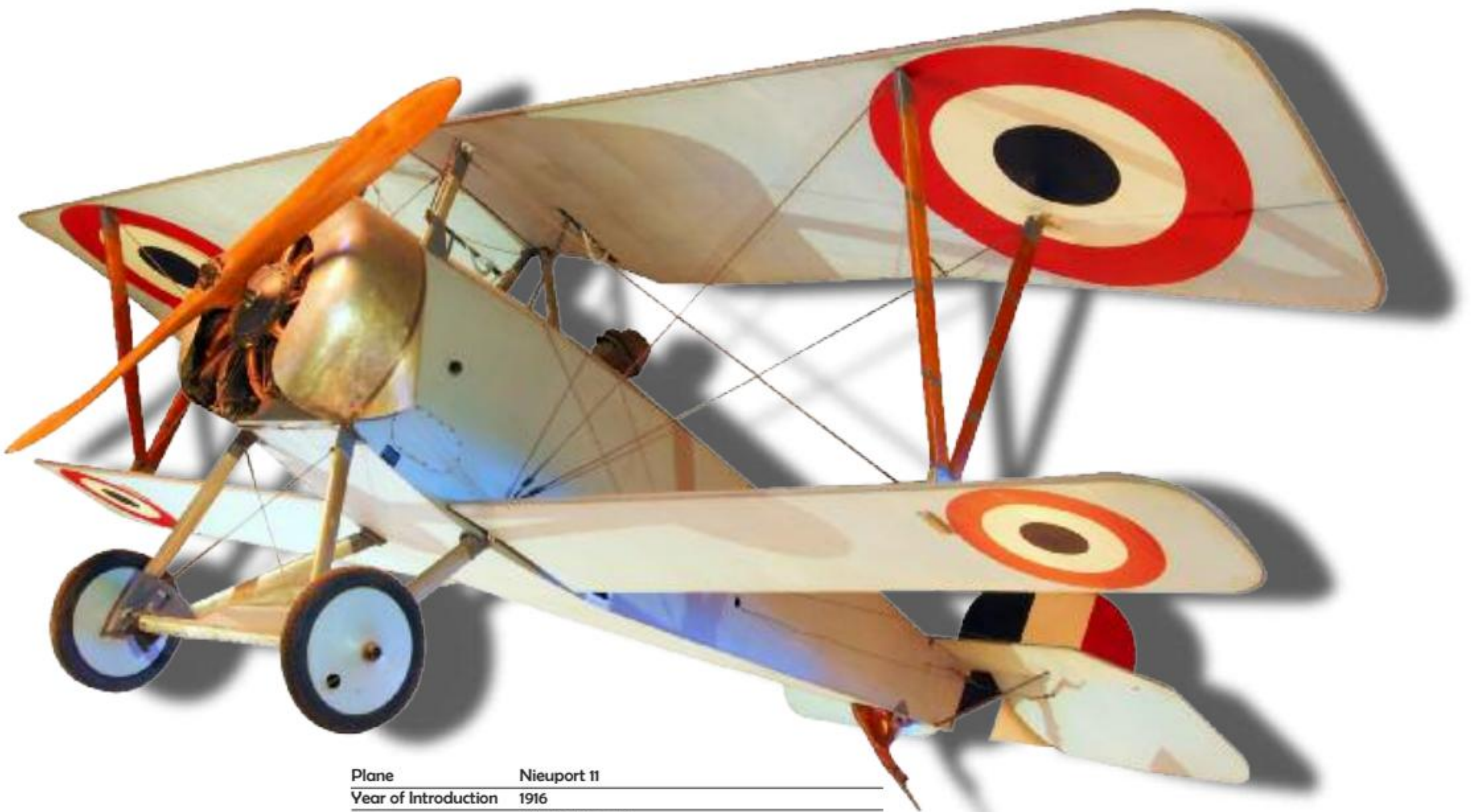
The Miles M.3 Falcon was a low-wing monoplane that bore structural similarities to its predecessor, the Miles M.2F Hawk Major.



# NAKAJIMA - NAVAL AIRCRAFT FACTORY

## NIEUPORT

Japan's Nippon Aircraft was established in 1918 and acquired the Nihon Aircraft Factory in the following year to become the Nakajima Aircraft Company. During World War II, the company had five plants manufacturing a range of military aircraft. Following the war, the company became Fuji Heavy Industries. In the USA, the Naval Aircraft Factory was established in 1918 after the government struggled to find private manufacturers prepared to produce large numbers of Army and Navy aircraft. In 1902, Société Anonyme des Établissements Nieuport was originally established as Nieuport-Duplex. Moving from engine to aircraft production, the French company began with a single seat monoplane. In 1911, Nieuport was re-established purely to manufacture aircraft, and following the death of one of its founding Nieuport brothers, the company was taken over by Delage. During World War I, the Nieuport 10 and 12 were in service as fighters, and were followed up by a succession of aircraft that culminated in the Nieuport 28. In the post-war years, the company produced the Nieuport-Delage series, some models of which were flown in the Spanish Civil War. The company eventually merged with Loire Aviation and fell into German hands during World War II.



|                      |                     |
|----------------------|---------------------|
| Plane                | Nieuport 11         |
| Year of Introduction | 1916                |
| Type                 | Fighter Aircraft    |
| Engine               | 9-cyl Le Rhone 9C   |
| Service Ceiling      | 15,090 ft (4,600 m) |

The Nieuport 11 was a Delage designed French fighter during World War I. It was the aircraft that ended the 1916 domination by Germany's Fokker fighters. The model became a post-war trainer into the 1920s.



|                      |                            |
|----------------------|----------------------------|
| Plane                | Naval Aircraft Factory N3N |
| Year of Introduction | 1936                       |
| Type                 | Biplane Trainer            |
| Engine               | Wright R-760-2 Whirlwind   |
| Service Ceiling      | 15,200 ft (4,635 m)        |

The Naval Aircraft Factory N3N was built in Pennsylvania, USA. It was designed as a replacement for the Consolidated NY-2 and operated as a seaplane and conventional aircraft.



|                      |                           |
|----------------------|---------------------------|
| Plane                | Nieuport 17 C.1           |
| Year of Introduction | 1916                      |
| Type                 | Sesquiplane Fighter       |
| Engine               | 9-cyl Le Rhône 9Ja Rotary |
| Service Ceiling      | 17,390 ft (5,300 m)       |

The Nieuport 17 C.1 served France as a fighter during World War I. It was highly manoeuvrable and had a renowned rate of climb, resulting in additional manufacturing under license in Italy and Russia.

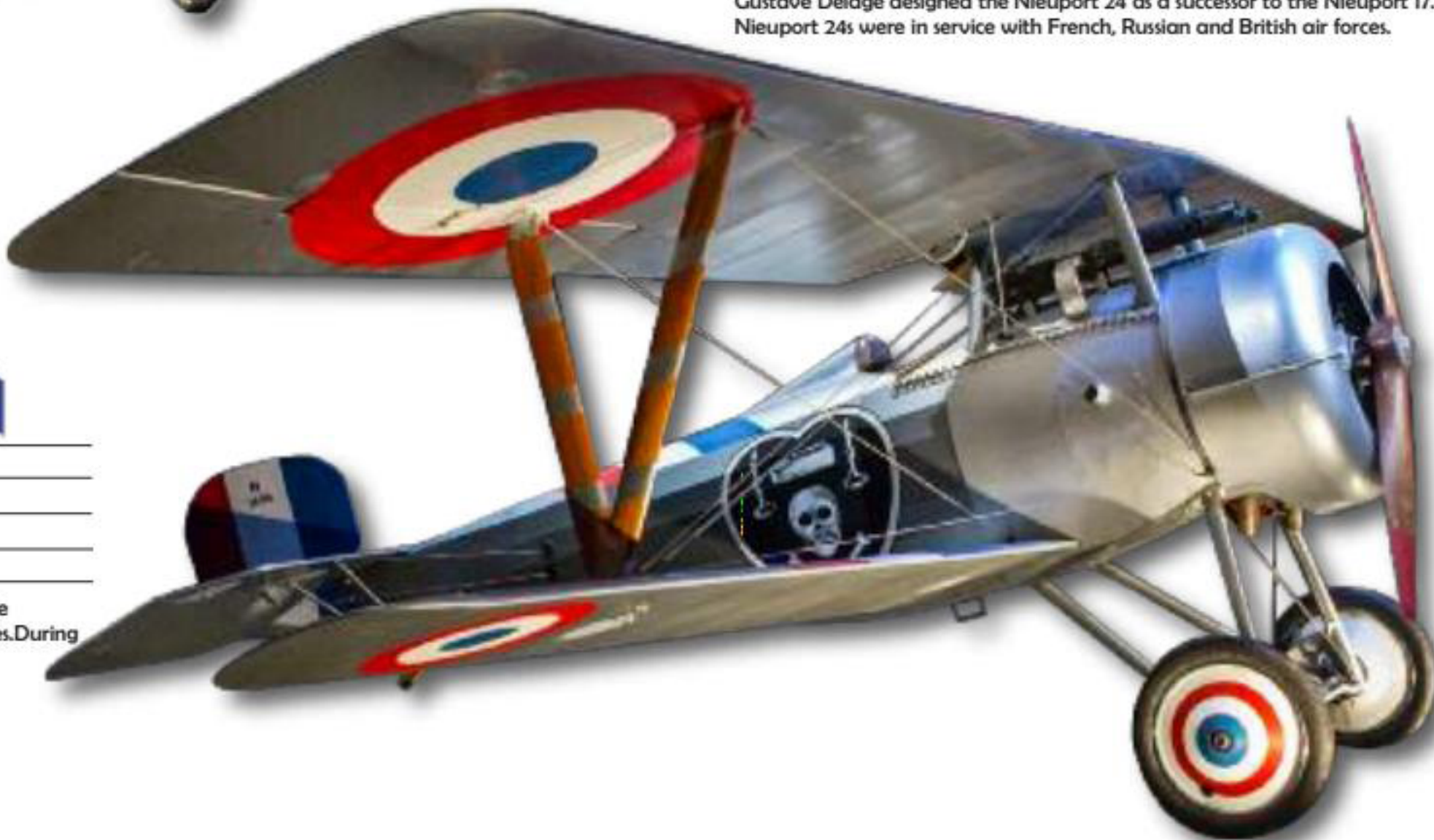


|                      |                     |
|----------------------|---------------------|
| Plane                | Nieuport 28 C.1     |
| Year of Introduction | 1918                |
| Type                 | Fighter Biplane     |
| Engine               | Gnome 9-N Rotary    |
| Service Ceiling      | 17,390 ft (5,300 m) |

The Nieuport 28 C.1 was a lightweight fighter biplane used extensively by France and its Allies during World War I.

|                      |                          |
|----------------------|--------------------------|
| Plane                | Nieuport 24              |
| Year of Introduction | 1917                     |
| Type                 | Fighter Aircraft         |
| Engine               | 9-cyl Le Rhône 9J Rotary |
| Service Ceiling      | 18,200 ft (5,550 m)      |

Gustave Delage designed the Nieuport 24 as a successor to the Nieuport 17. Most Nieuport 24s were in service with French, Russian and British air forces.



|                      |                         |
|----------------------|-------------------------|
| Plane                | Nakajima Ki-43 Hayabusa |
| Year of Introduction | 1941                    |
| Type                 | Tactical Fighter        |
| Engine               | 14-cyl Nakajima Ha-115  |
| Service Ceiling      | 36,750 ft (11,200 m)    |

Designated by the Imperial Japanese Army as the Army Type 1 Fighter, the Nakajima Ki-43 Hayabusa was a tactical fighter deployed from land bases.During World War II, it was referred to as the Army Zero by US pilots.



# NORTH AMERICAN

North American was established in the USA in 1928 as an aviation related holding company. A new law in 1934 forced the company to begin operating as a manufacturer, and North American was acquired by General Motors. The company produced the GA-15 observation aircraft and the GA-16 trainer among other models before World War II. In 1937, the North American BC-1 arrived as a combat aircraft, and the company joined many others preparing for the inevitability of war in the Pacific. The T-6 Trainer was produced to become the most widely used aircraft of its type. The B-25 Mitchell and P-51 Mustang were renowned throughout World War II, and in the post-war years, new models included the T-28 Trojan, F-82 Mustang, B-45 Tornado and the XB-70 Valkyrie. In the jet age, the F-86 Sabre was produced in large numbers and saw success against the MiG fighters of the time, and North American headed into the Space Age to merge with Rockwell-Standard to ultimately become the property of Boeing and assist in the arrival of the Space Shuttle.



|                      |                                 |
|----------------------|---------------------------------|
| Plane                | North American T-285 Fennec     |
| Year of Introduction | 1959                            |
| Type                 | Military Trainer Aircraft       |
| Engine               | Wright R-1820-86 Cyclone Radial |
| Service Ceiling      | 39,000 ft (10,820 m)            |

The T-285 Fennec was a variant of the T-28 Trojan. The model was converted by France's Armée de l'Air as a replacement for the Morane-Saulnier MS.733A, and it was used as a counter insurgency weapon in North Africa.



|                      |                                      |
|----------------------|--------------------------------------|
| Plane                | North American Rockwell OV-10 Bronco |
| Year of Introduction | 1969                                 |
| Type                 | Light Attack / Observation Aircraft  |
| Engine               | Garrett T76-G-410/412 Turboprop x 2  |
| Service Ceiling      | 24,000 ft (7,315 m)                  |

The OV-10 Bronco was developed specifically for counter insurgency measures during the 1960s. The aircraft was capable of ferrying munitions, paratroops or medical evacuees.



|                      |   |
|----------------------|---|
| Plane                | P-51D Mustang   |
| Year of Introduction | 1942  |
| Type                 | Bomber Escort / Fighter Aircraft                        |
| Engine               | Packard V-1650-7 ( licence-built Rolls-Royce Merlin 60) |
| Service Ceiling      | 41,900 ft (12,800 m)                                    |

The P-51D Mustang was the first P-51 Mustang variant to sport North American's new bubble canopy. The canopy was made of plexiglass, which was a new form of composite plastic at the time.



|                      |   |
|----------------------|---|
| Plane                | North American Harvard 4A               |
| Year of Introduction | After 1935                              |
| Type                 | Military Trainer                        |
| Engine               | Pratt & Whitney R-1340-AN-1 Wasp Radial |
| Service Ceiling      | 24,200 ft (7,400 m)                     |

The Harvard 4A was a variant of the T-6 Texan used by the British and Commonwealth forces as a trainer during World War II. The aircraft was built in Canada.

|                      |                                     |
|----------------------|-------------------------------------|
| Plane                | North American F-86A Sabre          |
| Year of Introduction | 1949                                |
| Type                 | Jet Fighter                         |
| Engine               | General Electric J47-GE-27 Turbojet |
| Service Ceiling      | 49,600 ft (15,100 m)                |

The ACAZ C.2 was a prototype constructed from duralumin. It took off for a 1928 expedition to the Belgian Congo, but never made it out of Belgium.



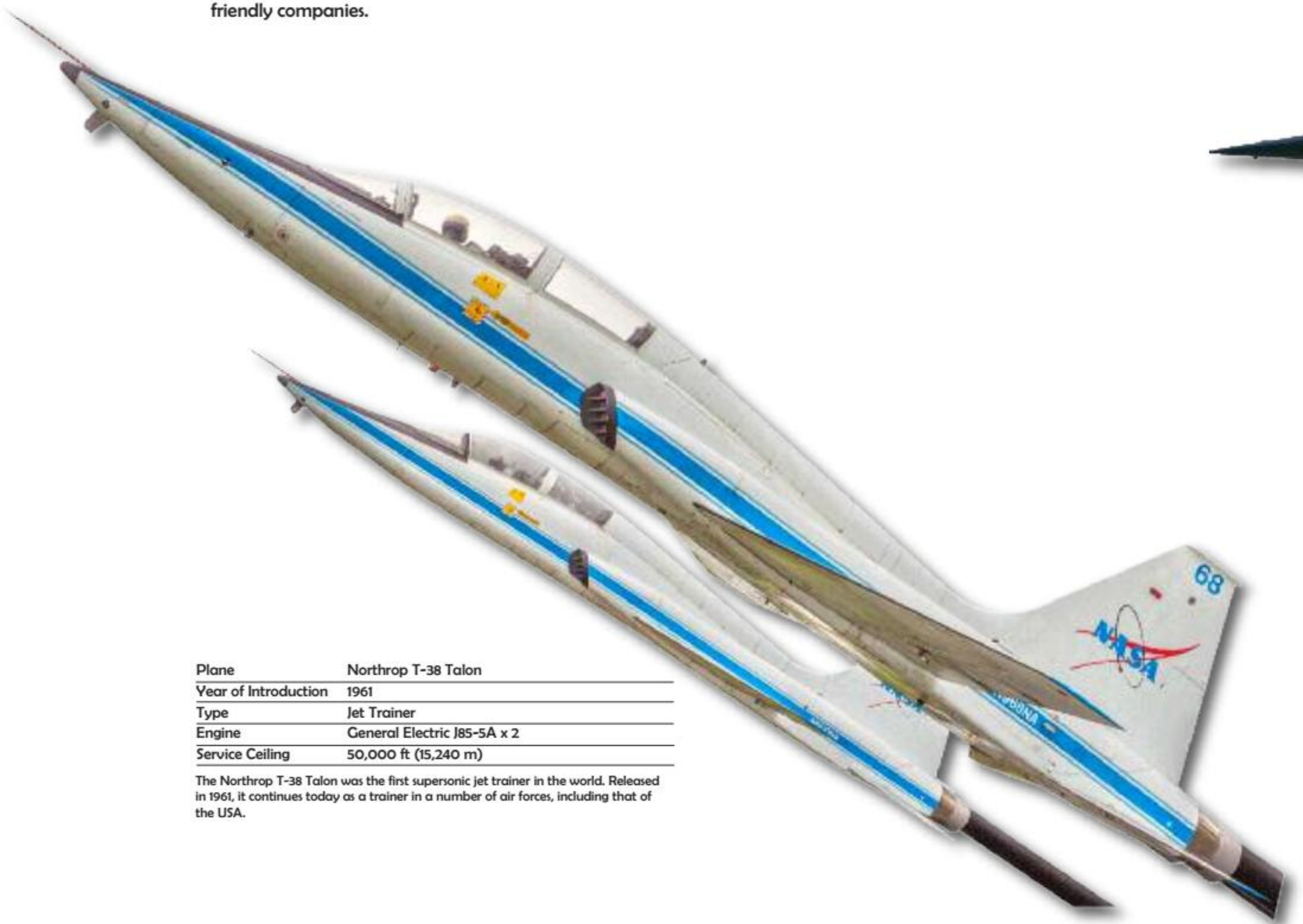
|                      |                               |
|----------------------|-------------------------------|
| Plane                | North American B-25J Mitchell |
| Year of Introduction | After 1941                    |
| Type                 | Medium Bomber                 |
| Engine               | 14-cyl Wright R-2600-92 x 2   |
| Service Ceiling      | 24,200 ft (7,378 m)           |

The B-25J Mitchell was the last of the B-25 Mitchell variants released. A total of 4,318 models were produced.



# NORTHROP

In 1927, Jack Northrop established the Avion Corporation, which became a subsidiary of the United Aircraft and Transport Corporation two years later. When the Avion Corporation relocated to Kansas, Northrop established his own Californian based Northrop Corporation with Donald Douglas, and the company produced models that included the Northrop Gamma and Delta. Douglas dissolved the company in 1937, and Northrop began again with his own Northrop Corporation. Northrop began designing and manufacturing aircraft for World War II, among which were the F-5 Freedom Fighter and the T-38 Talon trainer. In the 1970s and 1980s, Northrop developed more ground breaking aircraft, including the YF-17 Cobra, which was a competitor against the F-16 Fighting Falcon of General Dynamics. In the 1990s, Northrop acquired Grumman and established the Northrop Grumman Corporation, which became an aerospace and defence technology entity. Today, Northrop Grumman employs nearly 70,000 and is among the USA's top ten military-friendly companies.



|                      |                             |
|----------------------|-----------------------------|
| Plane                | Northrop T-38 Talon         |
| Year of Introduction | 1961                        |
| Type                 | Jet Trainer                 |
| Engine               | General Electric J85-5A x 2 |
| Service Ceiling      | 50,000 ft (15,240 m)        |

The Northrop T-38 Talon was the first supersonic jet trainer in the world. Released in 1961, it continues today as a trainer in a number of air forces, including that of the USA.



|                      |                                    |
|----------------------|------------------------------------|
| Plane                | Northrop YA-9                      |
| Year of Introduction | 1972                               |
| Type                 | Attack Aircraft (Prototype)        |
| Engine               | Lycoming YF102-LD-100 Turbofan x 2 |
| Service Ceiling      | Data Unavailable                   |

The Northrop YA-9 was developed for the US Air Force as part of its A-X program. It did not move beyond the prototype phase, as the USAF opted for the Fairchild Republic YA-10 instead.



|                      |   |
|----------------------|---|
| Plane                | Northrop B-2 Spirit                       |
| Year of Introduction | 1997                                      |
| Type                 | Stealth Bomber                            |
| Engine               | General Electric F118-GE-100 Turbofan x 4 |
| Service Ceiling      | 50,000 ft (15,200 m)                      |

The B-2 Spirit was colloquially known as the Stealth Bomber, and was designed to penetrate anti-aircraft defences. Today, the aircraft is virtually a flying wing and is manned by a crew of two.

|                      |  |
|----------------------|--|
| Plane                | Northrop F-5E Tiger II                   |
| Year of Introduction | After 1961                               |
| Type                 | Supersonic Light Fighter                 |
| Engine               | General Electric J85-GE-21B Turbojet x 2 |
| Service Ceiling      | 51,800 ft (15,800 m)                     |

The Northrop F-5E Tiger II was a single seat variant of the Northrop F-5A Freedom Fighter. The aircraft was equipped with an updated look-down radar system.



|                      |  |
|----------------------|--|
| Plane                | Northrop F-5A Freedom Fighter            |
| Year of Introduction | 1962                                     |
| Type                 | Supersonic Light Fighter                 |
| Engine               | General Electric J85-GE-21B Turbojet x 2 |
| Service Ceiling      | 51,800 ft (15,800 m)                     |


The Northrop F-5A Freedom Fighter was in development during the late 1950s. It was designed as a smaller contemporary of the McDonnell Douglas Phantom and other similar military aircraft.





# PACIFIC AEROSPACE - PANAVIA - PARNALL PARTENAVIA - PFALZ

Pacific Aerospace was formed when New Zealand's Aero Engine Services and Air Parts (NZ) merged to create a single company in 1973. The new entity manufactured the earlier PAC Fletcher, as well as developing the existing Victa Airtourer into the PAC CT/4 military trainer. Panavia Aircraft was established in Germany in the late 1960s when West Germany, Great Britain and Italy came together to form the Tornado Multi Role Compacy Aircraft Project (MRCA). Parnall & Sons was an English aircraft component manufacturer and ship fitter originally established in 1820 to produce weights and measures. During World War I, the company began manufacturing land and sea based aircraft. George Parnall, who was a descendent of the original founder, eventually left the company and established his own as Parnall Aircraft Ltd. Italy's Partenavia manufactured aircraft between 1957 and 1998. The first signifacant aircraft produced by the company was the P-57 Fachiro. Germany's Pfalz Flugzeugwerke manufactured aircraft during World War I, and its Pfalz D.III and D.XII aircraft were renowned as fighters. Following the Armistace, the company became a parts manufacturer and is known today as PFW.



|                      |                       |
|----------------------|-----------------------|
| Plane                | Pfalz D.XII           |
| Year of Introduction | 1918                  |
| Type                 | Fighter Aircraft      |
| Engine               | 6-cyl Mercedes D.IIIa |
| Service Ceiling      | 18,500 ft (5,639 m)   |

The Pfalz D.XII succeeded the Pfalz D.III toward of World War I. A large number were produced to see service in many theatres of the conflict.



|                      |   |
|----------------------|---|
| Plane                | Panavia Tornado GR4                       |
| Year of Introduction | 1994                                      |
| Type                 | Multi Role Combat Aircraft                |
| Engine               | Turbo-Union RB199-34R Mk 103 Turbofan x 2 |
| Service Ceiling      | 50,000 ft (15,240 m)                      |

The Panavia Tornado GR4 was a variant within the Panavia Tornado family. It was the result of a joint development project between Italy, Great Britain and West Germany. The GR4 was an updated GR1, with improved capabilities in the medium-altitude range.



|                      |                                    |
|----------------------|------------------------------------|
| Plane                | Panavia Tornado F3                 |
| Year of Introduction | 1985                               |
| Type                 | Long Range Inerceptor              |
| Engine               | Turbo-Union RB199-34R Turbofan x 2 |
| Service Ceiling      | 50,000 ft (15,240 m)               |

The Panavia Tornado F3 was the Air Defence Variant of the Tornado. The aircraft entered service in 1986 as part of the RAF, having already served in the Italian and Royal Saudi Air Forces.

|                      |                        |
|----------------------|------------------------|
| Plane                | Parnall Elf II         |
| Year of Introduction | 1929                   |
| Type                 | Light Touring Aircraft |
| Engine               | Cirrus Hermes II       |
| Service Ceiling      | Data Unavailable       |

The Parnall Elf II was a variant of the original Parnall Elf. It was a wood constructed biplane designed with staggered wings, which were set forward to allow the crew a quick emergency escape.



|                      |                                |
|----------------------|--------------------------------|
| Plane                | Partenavia P.68B               |
| Year of Introduction | After 1970                     |
| Type                 | Training/Transport Aircraft    |
| Engine               | 4-cyl Lycoming IO-360-A1B6 x 2 |
| Service Ceiling      | 19,200 ft (5,850 m)            |

The Partenavia P.68B was a variant of the P.68. Originally designed to be privately flown, the model became popular with a number of military and police forces. The P.68B had a longer fuselage than the original model, which allowed for six seats.

|                      |                                |
|----------------------|--------------------------------|
| Plane                | Partenavia P.68C               |
| Year of Introduction | After 1970                     |
| Type                 | Training/Transport Aircraft    |
| Engine               | 4-cyl Lycoming IO-360-A1B6 x 2 |
| Service Ceiling      | 19,200 ft (5,850 m)            |

The Partenavia P.68C was a variant of the P.68B, sporting a longer fuselage and modified fuel tanks. Originally built by Partenavia, it became the Vulcanair P68C following Partenavia's acquisition.



|                      |                                    |
|----------------------|------------------------------------|
| Plane                | Pacific Aerospace CT/4B Airtrainer |
| Year of Introduction | 1972                               |
| Type                 | Training Aircraft                  |
| Engine               | 6-cyl Lycoming AEIO-540-L1B5       |
| Service Ceiling      | 18,200 ft (5,550 m)                |

The CT/4B Airtrainer was a variant of the CT/4. The aircraft is an all-metal machine sporting a single engine and side-by-side seating.



|                      |                       |
|----------------------|-----------------------|
| Plane                | Pfalz D.III           |
| Year of Introduction | 1917                  |
| Type                 | Fighter Aircraft      |
| Engine               | 6-cyl Mercedes D.IIIa |
| Service Ceiling      | 17,001 ft (5,182 m)   |

The Pfalz D.III served as a fighter during World War I and was used primarily by the Jasta Squadron of Germany's Imperial Air Force. Its role changed to that of a trainer in the later years of the war.





# PIAGGIO - PILATUS

Piaggio Aerospace was originally established as Piaggio Aero Industries in Italy in 1906. The company had a ship and locomotive building history, and used its profits to enter the aircraft manufacturing industry. In the 1920s, the addition of two aeronautical engineers saw the company race ahead in technological terms, and Piaggio developed an early helicopter as a result. World War II saw Piaggio aircraft in the skies, and the company began manufacturing again in 1948 after rebuilding its war damaged factory. The first model released was the Piaggio P.136. The company expanded over the ensuing decades, and it was reorganised to become Piaggio Aero Industries in 1998. Since 2015, Piaggio has been owned by Abu Dhabi's Mubadla Development Company. Pilatus Aircraft is a Swiss manufacturer first established in 1939. The company was created to maintain the aircraft of the Swiss Air Force, as well as producing reconnaissance biplanes. The Pilatus P.1 was the first aircraft produced, and it was followed by the SB-2 Pelican, which was the first of the company's aircraft to enter service. More aircraft followed over the ensuing decades, including the PC-6 Porter STOL transport aircraft. Pilatus acquired Britten-Norman in 1979, and later established a Chinese based manufacturing facility in 2013.



|                      |                                    |
|----------------------|------------------------------------|
| Plane                | Piaggio P.166DL3                   |
| Year of Introduction | After 1957                         |
| Type                 | Light Transport Aircraft           |
| Engine               | Lycoming LTP 101-600 Turboprop x 2 |
| Service Ceiling      | Data Unavailable                   |

The Piaggio P.166DL3 was a light transport variant of the P.166 utility aircraft. Only 14 units of the model were built.



|                      |   |
|----------------------|---|
| Plane                | Piaggio P.180 Avanti                          |
| Year of Introduction | 1990  |
| Type                 | Executive Transport Aircraft                  |
| Engine               | Pratt & Whitney Canada PT6A-66B Turboprop x 2 |
| Service Ceiling      | 41,000 ft (12,497 m)                          |

The Piaggio P.180 Avanti was a pusher configured transport aircraft. It had a pressurised cabin and seated up to nine passengers. The aircraft had the option of being piloted by one or two pilots.



|                      |                     |
|----------------------|---------------------|
| Plane                | Pilatus P-2         |
| Year of Introduction | 1946                |
| Type                 | Trainer Aircraft    |
| Engine               | Argus As 410 A-2    |
| Service Ceiling      | 21,654 ft (6,600 m) |

The Pilatus P-2 trainer was in service with the Swiss Air Force between 1946 and 1981. The model was a variant of the unfinished P-1.

|                      |                             |
|----------------------|-----------------------------|
| Plane                | Pilatus P-3                 |
| Year of Introduction | 1956                        |
| Type                 | Military Trainer            |
| Engine               | 6-cyl Lycoming GO-435-C2-A2 |
| Service Ceiling      | 18,045 ft (5,500 m)         |

The Pilatus P-3 was designed as a military trainer, and when in service was designated the P-3-03. It was an all-metal machine with a retractable undercarriage and racks under the wing for practise rockets or bombs.



|                      |  |
|----------------------|--|
| Plane                | Pilatus PC-6 Turbo Porter                |
| Year of Introduction | 1961                                     |
| Type                 | STOL Utility Aircraft                    |
| Engine               | Pratt & Whitney Canada PT6A-27 Turboprop |
| Service Ceiling      | 25,000 ft (8,197 m)                      |

The Pilatus PC-6 Turbo Porter was the turboprop variant of the piston-engined PC-6 Porter. A number of models were built under license by Fairchild Hiller in the USA.

|                      |   |
|----------------------|---|
| Plane                | Pilatus PC-7 Turbo Trainer                |
| Year of Introduction | 1978                                      |
| Type                 | Trainer Aircraft                          |
| Engine               | Pratt & Whitney Canada PT6A-25A Turboprop |
| Service Ceiling      | 33,000 ft (10,060 m)                      |

The PC-7 Turbo Trainer was a versatile trainer, capable of instrument, aerobatic, night and tactical flying. It was the trainer of choice for over 20 global air forces.



|                      |  |
|----------------------|--|
| Plane                | Pilatus PC-9                             |
| Year of Introduction | 1984                                     |
| Type                 | Trainer Aircraft                         |
| Engine               | Pratt & Whitney Canada PT6A-62 Turboprop |
| Service Ceiling      | 37,992 ft (11,580 m)                     |

The Pilatus PC-9 was a more powerful development of the Pilatus PC-7. The model was in service as a trainer with the Royal Saudi, Swiss, Royal Australian and Royal Thai Air Forces.

|                      |   |
|----------------------|---|
| Plane                | Pilatus PC-12                             |
| Year of Introduction | 1994                                      |
| Type                 | Cargo/Passenger Aircraft                  |
| Engine               | Pratt & Whitney Canada PT6A-67P Turboprop |
| Service Ceiling      | 30,000 ft (9,144 m)                       |

The PC-12 was designed for passenger and cargo conveyance, and was aimed at the regional market. Models in service with the USAF were given the designation of U-28A.



# PIPER

Piper Aircraft was founded in 1927 in the USA as Taylor Brothers Aircraft Manufacturing Company. William T. Piper invested in the company in 1929 following the death of one of the Taylor brothers in an aircraft accident. In 1930, the company was bankrupt, and Piper purchased its assets and took control of the company. In the darkest hours of the Great Depression, the company released the E-2 Cub as an economical model. Fire destroyed the plant in 1935, and the company was relocated and renamed the Piper Aircraft Corporation. Throughout World War II, Piper manufactured military versions of its J-3 Cub, naming it the L-4 Grasshopper. By 1946, Pipers were the biggest selling light aircraft in the USA, and the company began producing military aircraft again for the Korean War. The 1950s was also a time when the PA-25 Pawnee was developed as an agricultural aircraft. The native American theme continued through a succession of Comanches, Pawnees, Navajos, Aztecs, Cheyennes, Chieftains and Cherokees. The 1980s heralded a slump in sales as a result of rising insurance premiums, but the company saw in the 21st century having survived the worst of it. By 2009, Piper had produced nearly 150,000 aircraft over a range of 160 models. Nearly 100,000 of those aircraft are still flying today.



|                      |                         |
|----------------------|-------------------------|
| Plane                | Piper PA-18 Super Cub   |
| Year of Introduction | 1949                    |
| Type                 | Single Engine Monoplane |
| Engine               | 4-cyl Lycoming O-320    |
| Service Ceiling      | 19,000 ft (5,595 m)     |

The Piper PA-18 Super Cub was a development of the PA-11, which in turn had lineage in the early Taylor E-2 Cub. The model was in production for nearly 40 years, and was a popular bush and glider towing aircraft.



|                      |                                 |
|----------------------|---------------------------------|
| Plane                | Piper Meridian M500             |
| Year of Introduction | 2000                            |
| Type                 | Light Aircraft                  |
| Engine               | Pratt & Whitney Canada PT6A-42A |
| Service Ceiling      | 30,000 ft (9,144 m)             |

The Piper Meridian M500 was a variant of the Piper PA-46 Malibu. It was equipped with updated avionics and had few competitors due to its long range and high service ceiling.



|                      |                        |
|----------------------|------------------------|
| Plane                | Piper PA-22 Tri-Pacer  |
| Year of Introduction | 1950                   |
| Type                 | Light Aircraft         |
| Engine               | 4-cyl Lycoming O-320-B |
| Service Ceiling      | 16,500 ft (5,029 m)    |

The Piper PA-22 Tri-Pacer was a high-wing light aircraft built during the period following World War II. It replaced the earlier PA-17 Vagabond and was built of similar material to that of the Cub and Super Cub models.



|                      |                            |
|----------------------|----------------------------|
| Plane                | Piper PA-28-161 Warrior II |
| Year of Introduction | 1976                       |
| Type                 | Light Aircraft             |
| Engine               | Lycoming O-320-D3G         |
| Service Ceiling      | 14,300 ft (4,400 m)        |

The PA-28-161 Warrior II was a variant of the Piper P-28 Cherokee. It had fixed landing gear and was an upgrade of the PA-28-160.



|                      |                        |
|----------------------|------------------------|
| Plane                | Piper PA-28R-200 Arrow |
| Year of Introduction | 1969                   |
| Type                 | Light Aircraft         |
| Engine               | Lycoming IO-360-C1C    |
| Service Ceiling      | 14,300 ft (4,400 m)    |

The Piper PA-28R-200 Arrow was a variant of the Piper PA-28 Cherokee. It had retractable landing gear and access to the cabin via the top of the wing on the co-pilot's side.



|                      |                               |
|----------------------|-------------------------------|
| Plane                | Piper PA-38-112 Tomahawk      |
| Year of Introduction | 1978                          |
| Type                 | Light Aircraft                |
| Engine               | 4-cyl Avco Lycoming O-235-L2C |
| Service Ceiling      | 13,000 ft (4,000 m)           |

The PA-38-112 Tomahawk was originally designed as a trainer or personal tourer. It became a popular general aviation aircraft and was equipped with hinged doors at the front to allow for cabin access.

|                      |                                     |
|----------------------|-------------------------------------|
| Plane                | Piper PA-46-350P Malibu Mirage M350 |
| Year of Introduction | 1979                                |
| Type                 | Light Aircraft                      |
| Engine               | Lycoming TIO-540-AE2A               |
| Service Ceiling      | 25,000 ft (7,620 m)                 |

The PA-46-350P Malibu Mirage was developed as a variant of the Piper PA-46 Malibu line. The original model was only the third single-engined piston-driven aircraft in the world to feature a pressurised cabin.



# PIPER - PIPISTREL - POLIKARPOV

Piper remains one of the most popular names in the history of general aviation aircraft. Since 2009, the company has been owned by the Brunei Government, as has Cessna and Beechcraft. Pipistrel was established in 1987 and became Yugoslavia's first private aircraft manufacturer. Located near the Italian border, early work on aircraft was carried out in secret, and clandestine flights were made in the twilight hours. The first models had a hang-glider look about them, so models were affectionately called 'bats'. The name Pipistrel is a derivation of the Latin word for bat. Today, Pipistrel designs and manufactures trainers for the Indian Air Force, Navy and Cadet Corps. The Polikarpov Design Bureau was established in the 1920s as a manufacturer of military aircraft. The company's first fighter aircraft was the IL-400 monoplane, and numerous bombers, ground attack aircraft, trainers, reconnaissance planes and airliners followed into the 1940s. The company's founder died in 1944, and the company was absorbed by Lavochkin. A number of Polikarpov's engineers later worked on MiG and Sukhoi aircraft.



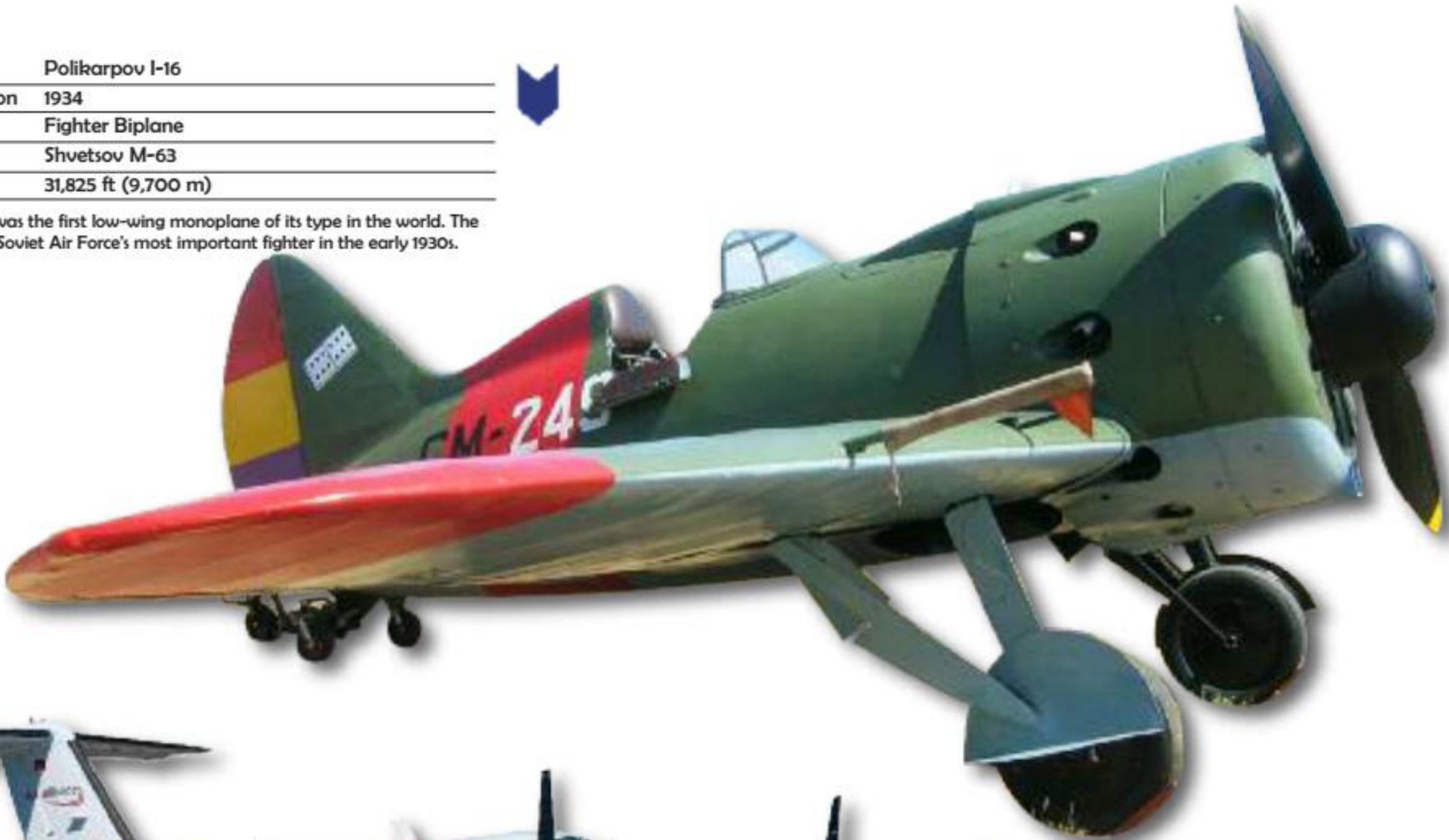
|                      |                     |
|----------------------|---------------------|
| Plane                | Polikarpov I-15 bis |
| Year of Introduction | 1934                |
| Type                 | Fighter Biplane     |
| Engine               | Shvetsov M-25V      |
| Service Ceiling      | 23,800 ft (7,250 m) |

The I-15 bis was a variant of the Polikarpov I-15. Its Shvetsov engine was more powerful than the preceding Bristol Jupiter M-22.



|                      |                     |
|----------------------|---------------------|
| Plane                | Polikarpov I-16     |
| Year of Introduction | 1934                |
| Type                 | Fighter Biplane     |
| Engine               | Shvetsov M-63       |
| Service Ceiling      | 31,825 ft (9,700 m) |

The Polikarpov I-16 was the first low-wing monoplane of its type in the world. The aircraft became the Soviet Air Force's most important fighter in the early 1930s.



|                      |  |
|----------------------|--|
| Plane                | Piper PA-42 Cheyenne IIIA                    |
| Year of Introduction | After 1979                                   |
| Type                 | Light Turboprop Aircraft                     |
| Engine               | Pratt & Whitney Canada PT6A-41 Turboprop x 2 |
| Service Ceiling      | 35,840 ft (10,925 m)                         |

The Cheyenne IIIA was a variant of the Piper PA-42 Cheyenne. In turn, the PA-42 was a development of the PA-31T Cheyenne I and II.



|                      |                       |
|----------------------|-----------------------|
| Plane                | Pipistrel Panthera    |
| Year of Introduction | 2013                  |
| Type                 | Light Aircraft        |
| Engine               | 6-cyl Lycoming IO-540 |
| Service Ceiling      | 25,000 ft (7,620 m)   |

The Pipistrel Panthera was constructed from lightweight composite materials. During the design phase, it was first mooted as a kit aircraft only, with later plans to have the model certified.

|                      |                         |
|----------------------|-------------------------|
| Plane                | Polikarpov Po-2         |
| Year of Introduction | 1929                    |
| Type                 | General Purpose Biplane |
| Engine               | 5-cyl Shvetsov M-11D    |
| Service Ceiling      | 9,843 ft (3,000 m)      |

The Polikarpov Po-2 was also known as the U-2. It was an extremely versatile aircraft that served in aerial reconnaissance, ground attack, liaison and psychological warfare roles.



|                      |  |
|----------------------|--|
| Plane                | Piper J3C-65 Cub.                              |
| Year of Introduction | 1939   |
| Type                 | Light Aircraft                                 |
| Engine               | Continental A-65-1 / A-75-8 / A-85-8 / A-90-8F |
| Service Ceiling      | 11,500 ft (3,500 m)                            |

The J3C-65 Cub was introduced two years into the J-3 Cub's decade-long production run. It was renowned for its handling properties and was one of the most popular light aircraft of its time.



|                      |                            |
|----------------------|----------------------------|
| Plane                | Piper PA-28RT-201 Arrow IV |
| Year of Introduction | 1978                       |
| Type                 | Light Aircraft             |
| Engine               | Lycoming IO-360-C1C6       |
| Service Ceiling      | 14,300 ft (4,400 m)        |

The PA-28RT-201 Arrow IV was a variant of the PA-28 Cherokee. It featured retractable landing gear and a T-Tail.



# ROYAL AIRCRAFT FACTORY - RYAN

The Royal Aircraft Factory had its roots in the 1904 Army Balloon Factory in Great Britain. The balloon establishment began experimenting with boxkite aircraft and moved into aircraft production in 1912, when it was renamed the Royal Aircraft Factory. In 1918, following the end of World War I, the entity became the Royal Aircraft Establishment and began to focus on research. Throughout the majority of the 20th century, the RAE worked on experimental aircraft and invented carbon fibre in 1963. In 1988, the RAE became the Royal Aerospace Establishment and was later merged into the Ministry of Defence's research agency (the DRA). In 1934, the Ryan Aeronautical Company was established in California, USA by T. Claude Ryan, who had erroneously been credited with the design of Charles Lindbergh's 'Spirit of St. Louis'. Ryan had dabbled with an airline of his own in 1925 after operating a San Diego based flying service. Ryan's first significant model was the Ryan ST sport trainer, which was quickly followed by the Ryan STA aerobatic variant. A Ryan trainer was produced in the early years of World War II, and the company then became involved in unmanned aircraft and missile development in the post war years. Ryan was acquired by Teledyne in 1968, which in turn was acquired by Northrop Grumman in 1999.



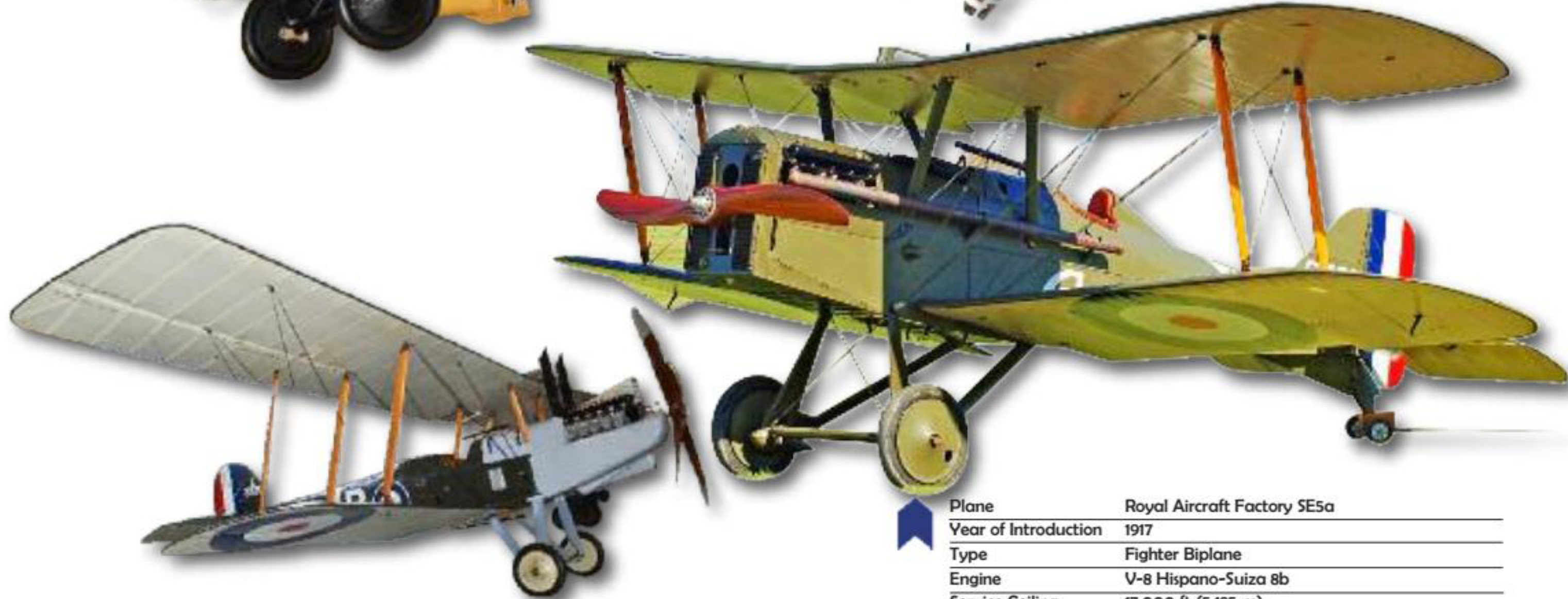
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|----------------------|----------------------------------|
| Plane                | Royal Aircraft Factory B.E.2c    |
| Year of Introduction | 1912                             |
| Type                 | Reconnaissance Aircraft / Bomber |
| Engine               | V-8 RAF 1a                       |
| Service Ceiling      | 10,000 ft (3,050 m)              |

The Royal Aircraft Factory B.E.2c was a variant of the B.E.2. The new aircraft was almost a brand new model, such were the marked differences between the two aircraft.



|                      |                               |
|----------------------|-------------------------------|
| Plane                | Royal Aircraft Factory F.E.2b |
| Year of Introduction | 1915                          |
| Type                 | Biplane                       |
| Engine               | 6-cyl Beardmore               |
| Service Ceiling      | 11,000 ft (3,353 m)           |

The Royal Aircraft Factory's F.E.2B was a variant of the F.E.2 model, which stood for 'Farman Experimental'. All three models (F.E.2, F.E.2a and F.E.2b) were very different to each other.



|                      |                             |
|----------------------|-----------------------------|
| Plane                | Royal Aircraft Factory SE5a |
| Year of Introduction | 1917                        |
| Type                 | Fighter Biplane             |
| Engine               | V-8 Hispano-Suiza 8b        |
| Service Ceiling      | 17,000 ft (5,185 m)         |

The Royal Aircraft SE5a was a variant of the SE5. The original model was one of the first British aircraft on the Western Front in France, even before the Sopwith Camel arrived.

|                      |                                |
|----------------------|--------------------------------|
| Plane                | Royal Aircraft Factory R.E.8   |
| Year of Introduction | 1916                           |
| Type                 | Reconnaissance /Bomber Biplane |
| Engine               | V-12 Royal Aircraft Factory 4a |
| Service Ceiling      | 13,500 ft (4,115 m)            |

The R.E.8 was designed to operate as both a reconnaissance aircraft and a bomber during World War I. It was a difficult aircraft to fly, and was better in its reconnaissance role than as a bomber.

|                      |                     |
|----------------------|---------------------|
| Plane                | Ryan PT-22 Recruit  |
| Year of Introduction | 1941                |
| Type                 | Military Trainer    |
| Engine               | Kinner R-540        |
| Service Ceiling      | 15,400 ft (4,700 m) |

The Ryan PT-22 Recruit was the military variant of the Ryan ST sport aircraft. The model was the first aircraft of its type that was purpose built for the United States Army Air Corps.





# SAAB

The Saab Group was originally established in Sweden as Svenska Aeroplan AB. The company came about as a result of merging Svenska Aero AB and VASJA in 1937. In 1950, the Saab name was styled as SAAB. The company's focus was fighter aircraft, and in the pre-jet age, Saab produced the Tunnan, Lansen, Draken and Viggen, as well as turboprop airliners such as the Saab 340 and 2000. The most famous of the company's modern jet fighters was the JAS 39 Gripen, a variant of which continues in production today. In 1995, Saab's military aircraft division formed a joint venture with British Aerospace (BAe Systems) to manufacture the Gripen for international use. The new entity was named Saab BAe Gripen AB, and led to the later formation of Gripen International. Four years later, Saab acquired Celsius AB, and by 2005, the company was a major player in the Dassault 'nEUROn' Project. A 2010 restructure saw the company formed into five separate business units, each with their own specialty. At the same time, BAe sold a percentage of its stakeholding in Saab to Investor AB. Today, Investor AB owns 30 percent of Saab, making it the company's largest stakeholder and the majority owner.



|                      |                                       |
|----------------------|---------------------------------------|
| Plane                | Saab 105                              |
| Year of Introduction | 1967                                  |
| Type                 | Military Trainer                      |
| Engine               | General Electric J85-17B Turbojet x 2 |
| Service Ceiling      | 44,950 ft (13,700 m)                  |

The Saab 105 was developed as a replacement for the Swedish Air Force's de Havilland Vampire fleet, which was ageing in the late 1960s. In military service, the aircraft had the designation Sk60.



|                      |                                       |
|----------------------|---------------------------------------|
| Plane                | Saab 340B Plus                        |
| Year of Introduction | After 1983                            |
| Type                 | Twin Turboprop Airliner               |
| Engine               | General Electric CT7-9B Turboprop x 2 |
| Service Ceiling      | 25,000 ft (7,620 m)                   |

The Saab 340B Plus was a variant of the Saab 340. The aircraft began life as a joint Saab-Fairchild partnership, and the 340B Plus had extended wing tips.



|                      |                               |
|----------------------|-------------------------------|
| Plane                | Saab 35 Draken                |
| Year of Introduction | 1950                          |
| Type                 | Jet Fighter Aircraft          |
| Engine               | Volvo Flygmotor RM6C Turbojet |
| Service Ceiling      | 59,000 ft (18,000 m)          |

The Saab 35 Draken was first released in 1955 and remained in production until 1974. The aircraft was originally a replacement for the J29 Tunnan, and later replaced the 32 Lansen as a fighter. It was Europe's first truly supersonic aircraft.



|                      |                                |
|----------------------|--------------------------------|
| Plane                | Saab 91 Safir                  |
| Year of Introduction | From 1946                      |
| Type                 | Single Engine Trainer          |
| Engine               | 4-cyl de Havilland Gipsy Major |
| Service Ceiling      | 15,100 ft (4,600 m)            |

The Saab 91 Safir was built between 1946 and 1966. A number of variants were produced over the two decades and included five different versions. The 91 Safir has been used as a trainer by numerous Scandinavian and North African air forces.



|                      |                                       |
|----------------------|---------------------------------------|
| Plane                | Saab 37 Viggen                        |
| Year of Introduction | 1971                                  |
| Type                 | Short to Medium Range Combat Aircraft |
| Engine               | Volvo RM8B Turbofan                   |
| Service Ceiling      | 59,100 ft (18,000 m)                  |

The Saab 37 Viggen was first in the design phase from 1952, and its delta wing configuration was considered radical when it was first unveiled. It became the first aircraft of its type to be manufactured in any quantity.



|                      |                                       |
|----------------------|---------------------------------------|
| Plane                | Saab 340                              |
| Year of Introduction | 1983                                  |
| Type                 | Twin Turboprop Airliner               |
| Engine               | General Electric CT7-9B Turboprop x 2 |
| Service Ceiling      | 25,000 ft (7,620 m)                   |

Saab and Fairchild developed the Saab 340 as a joint project, with Fairchild intially manufacturing the wings and turboprop engine nacelles. Eventually, the entire aircraft was produced by Saab.

|                      |  |
|----------------------|--|
| Plane                | Saab-Fairchild SF-340A                 |
| Year of Introduction | 1983                                   |
| Type                 | Commuter Airliner                      |
| Engine               | General Electric CT7-5A2 Turboprop x 2 |
| Service Ceiling      | 25,000 ft (7,620 m)                    |

Saab and Fairchild developed the SF340 as a joint project, with Fairchild responsible for producing the aircraft's wings and nacelles. The SF340A was a variant of the original model and was powered by upgraded General Electric engines.



# SAI - SCOTTISH - SHAANXI - SHENYANG SHINMAYWA

SAI Ambrosini was established in Italy in 1922 as the Società Aeronautica Italiana. In 1934, the company was acquired by the Ambrosini Group and produced racing and touring aircraft in the inter-war years. Scottish Aviation was established in 1935 in Ayrshire, Scotland. The company was originally a flying school, but moved into aircraft fitting during World War II. In the post-war years, Scottish produced the sturdy Pioneer series, followed by Bulldog trainers after the collapse of Beagle Aircraft. In 1977, Scottish Aviation became part of the newly formed British Aerospace. China's Shaanxi Aircraft Corporation is a recent aircraft manufacturer situated in the Shaanxi Province. The company is part of the Aviation Industry Corporation of China and manufactures military aircraft. Also in China, the Shenyang Aircraft Corporation is another AVIC member, and was originally established in 1953. The company specialises in the design and manufacture of fighter aircraft. Japan's ShinMaywa Industries has its roots in the Kawanishi Aircraft Company, which began life in 1949. Situated in the Hyōgo Prefecture, ShinMaya is now a large industrial conglomerate.



|                      |  |
|----------------------|--|
| Plane                | Shin Meiwa US-1A                                 |
| Year of Introduction | 1971   |
| Type                 | Amphibious Aircraft                              |
| Engine               | Ishikawajima-Harima/GE T64-IHI-10J Turboprop x 4 |
| Service Ceiling      | 23,600 ft (7,195 m)                              |

The Shin Meiwa US-1A was designed alongside its PS-1 sibling. The latter was a flying boat, while the US-1A was purely amphibious. Both models worked in anti-submarine and air-sea rescue roles.



|                      |  |
|----------------------|--|
| Plane                | Shaanxi Y-9 GC-8                         |
| Year of Introduction | 2010                                     |
| Type                 | Electronic Warfare/Surveillance Aircraft |
| Engine               | Zhuzhou Woliang-6 Turboprop x 4          |
| Service Ceiling      | 34,120 ft (10,400 m)                     |

The GC-8 variant of the Shaanxi Y-9 was developed in the early 21st century as an electronic intelligence data collection aircraft. Little is known about the inner workings of the model, and at least three are known to be in current service.



|                      |                      |
|----------------------|----------------------|
| Plane                | SA Bulldog T1        |
| Year of Introduction | 1971                 |
| Type                 | Training Aircraft    |
| Engine               | Lycoming IO-360-A1B6 |
| Service Ceiling      | 16,000 ft (4,875 m)  |

The SA Bulldog T1 was a variant of the Scottish Aviation Bulldog. The original Bulldog was designed and built by Beagle Aircraft as the B.125 Bulldog until the production rights were acquired by Scottish Aviation.

|                      |                                    |
|----------------------|------------------------------------|
| Plane                | SAI-Ambrosini S.7 Supersette       |
| Year of Introduction | 1939                               |
| Type                 | Racing Aircraft / Military Trainer |
| Engine               | 6-cyl Alfa Romeo 115-ter           |
| Service Ceiling      | 17,225 ft (5,250m)                 |

The SAI-Ambrosini S.7 Supersette was a prototype armed training aircraft developed at the beginning of World War II. It was a variant of the SAI.7 racing aircraft and was constructed from wood.



|                      |                      |
|----------------------|----------------------|
| Plane                | Shenyang FT-5        |
| Year of Introduction | 1956                 |
| Type                 | Training Aircraft    |
| Engine               | Wopen WP-5           |
| Service Ceiling      | 54,000 ft (16,500 m) |

The Shenyang F-T 5 is the export training variant of the Shenyang J-5. Until 1964, the original aircraft was designated the Dongfeng-101.

|                      |                              |
|----------------------|------------------------------|
| Plane                | Shenyang J-6                 |
| Year of Introduction | 1962                         |
| Type                 | Fighter Aircraft             |
| Engine               | Liming Wopen-6A Turbojet x 2 |
| Service Ceiling      | 58,700 ft (17,900 m)         |

The Shenyang J-6 was the Chinese built variant of Russia's MiG-19 fighter. The aircraft was designed for a very short life of only 100 sorties. It was also in service with the Pakistan Air Force as the Shenyang F-6.



|                      |                              |
|----------------------|------------------------------|
| Plane                | Shenyang J-8                 |
| Year of Introduction | 1980                         |
| Type                 | Interceptor/Fighter Aircraft |
| Engine               | WP-13B Turbojet x 2          |
| Service Ceiling      | Data Unavailable             |

The Shenyang J-8 was designed to operate at high speed in high altitudes. A large number were constructed, and more than 300 remain in service in China today.

|                      |                                    |
|----------------------|------------------------------------|
| Plane                | SA Jetstream T.1                   |
| Year of Introduction | 1969                               |
| Type                 | Regional Airliner                  |
| Engine               | Turbomeca Astazou XVI C2 Turboprop |
| Service Ceiling      | 25,000 ft (7,620 m)                |

The Scottish Aviation Jetstream T.1 began life as the Handley Page HP.137 Jetstream T1. The T1 designation was a military one applied by Britain's RAF.



# SHORT BROTHERS

Short Brothers (Shorts) was established in London in 1908 and was the world's first production aircraft manufacturer. Earlier work on balloon manufacture led to Eustace and Oswald Short becoming involved in the aircraft industry, and the company released one of the world's first twin-engined aircraft in 1911 with the Triple Twin. Shorts then began designing float planes and moved into World War I producing a variety of models that included the Short Admiralty Type 184. Two significant flying boats were also produced during the conflict, and Shorts continued with seaplanes in the inter-war years. Designing floats for other aircraft manufacturers in the 1920s, Shorts then developed the Short Singapore, Calcutta and Empire aircraft, but it was the Short Sunderland flying boat of the 1930s, putting the company on the map. In 1936, the company moved from London to Belfast in Northern Ireland. The Short Sunderland was in service during World War II, and the Short Stirling bomber and Short Shetland flying boat were developed. Shorts merged with Harland in 1947. Short Brothers became a public company in the mid 1980s, and was sold to Bombardier in 1989.



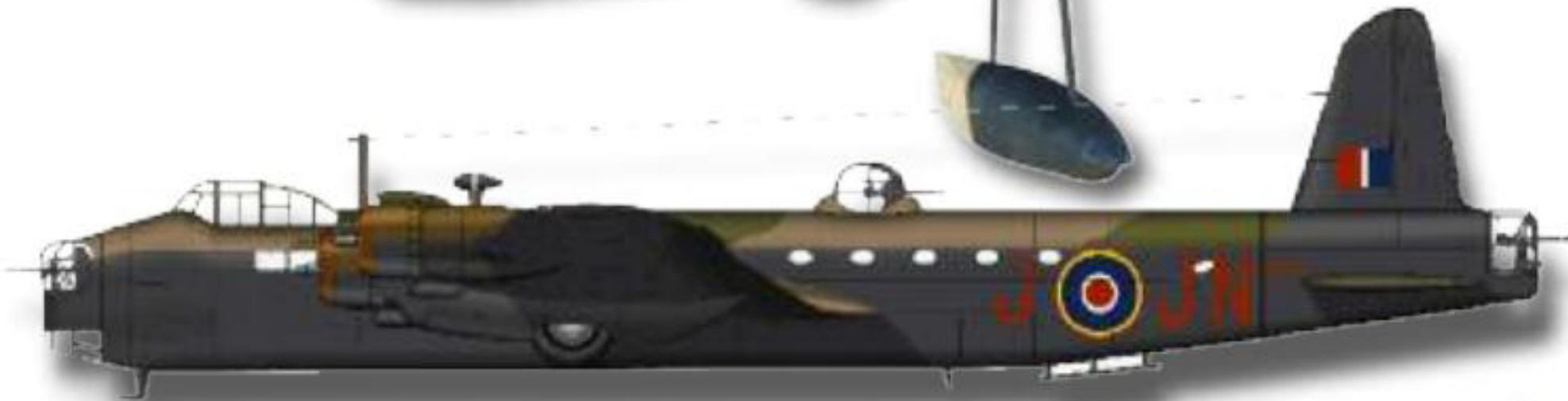
|                      |  |
|----------------------|--|
| Plane                | Short SC.7 Skyvan                            |
| Year of Introduction | 1963   |
| Type                 | Short Haul Freight/Skydiving Aircraft        |
| Engine               | Garrett AiResearch TPE-331-201 Turboprop x 2 |
| Service Ceiling      | 22,500 ft (6,858 m)                          |

The Short SC.7 Skyvan was colloquially known as the 'Flying Shoebox'. The all-metal monoplane formed the basis for the later Short 330 and 360 models, which were virtually stretched variants.



|                      |                                 |
|----------------------|---------------------------------|
| Plane                | Short S.25 Sunderland           |
| Year of Introduction | 1938                            |
| Type                 | Flying Boat / Patrol Bomber     |
| Engine               | 9-cyl Bristol Pegasus XVIII x 4 |
| Service Ceiling      | 16,000 ft (4,880 m)             |

The Short S.25 Sunderland was designed with the S.23 Empire flying boat as its inspiration. It was a military aircraft used extensively in anti-submarine work during World War II, and also took part in the Berlin Airlift.



|                      |                                |
|----------------------|--------------------------------|
| Plane                | Short Stirling                 |
| Year of Introduction | 1940                           |
| Type                 | Heavy Bomber                   |
| Engine               | Bristol Hercules II Radial x 4 |
| Service Ceiling      | 16,500 ft (5,030 m)            |

The Short Stirling was used as a heavy bomber during World War II, and was moved to second-line duty after the release of Avro's Lancaster and Handley Page's Halifax.



|                      |  |
|----------------------|--|
| Plane                | Short SD3-30                                   |
| Year of Introduction | 1976   |
| Type                 | Transport Aircraft                             |
| Engine               | Pratt & Whitney Canada PT6A-45-R Turboprop x 2 |
| Service Ceiling      | 26,000 ft (6,400 m)                            |

The Short SD3-30 was also known as the Short 330. It was a transport aircraft capable of seating up to 30 passengers and was a relatively inexpensive aircraft of its time.

|                      |  |
|----------------------|--|
| Plane                | Short Belfast                                  |
| Year of Introduction | 1966   |
| Type                 | Heavy Lift Freighter                           |
| Engine               | Rolls-Royce Tyne R.Ty.12 Mk. 101 Turboprop x 4 |
| Service Ceiling      | 30,000 ft (9,144 m)                            |

The Short Belfast was designed to operate as a heavy lift freighter with the British RAF. The model was the second aircraft in the world to feature blind landing equipment.



|                      |                              |
|----------------------|------------------------------|
| Plane                | Short Tucano T1              |
| Year of Introduction | 1989                         |
| Type                 | Basic Training Aircraft      |
| Engine               | Garrett TPE331-12B Turboprop |
| Service Ceiling      | 34,000 ft (10,363 m)         |

The Short Tucano T1 was a two-seat trainer developed as a variant of the Short Tucano. It was placed into service with Britain's RAF.



|                      |   |
|----------------------|---|
| Plane                | Short C-23B+ Sherpa                           |
| Year of Introduction | 1984  |
| Type                 | Military Utility Transport                    |
| Engine               | Pratt & Whitney Canada PT6A-67R Turboprop x 2 |
| Service Ceiling      | 20,000 ft (6,096 m)                           |

The Short C-23B+ Sherpa was a variant of the Short 360. Capable of seating up to 39 passengers, the aircraft was colloquially known as 'The Shed'.

|                      |   |
|----------------------|---|
| Plane                | Short 360                                     |
| Year of Introduction | 1982  |
| Type                 | Commuter Aircraft                             |
| Engine               | Pratt & Whitney Canada PT6A-67R Turboprop x 2 |
| Service Ceiling      | 20,000 ft (6,096 m)                           |

The Short 360 was also known as the Short SD3-60. The commuter aircraft was capable of carrying 36 passengers and was designed as a larger variant of the Short 330.



# SIAI-MARCHETTI - SIEBEL - SKYLEADER

## SPAD - STAMPE ET VERTONGEN

SIAI-Marchetti was established in Italy in 1915 as a seaplane manufacturer. Following the end of World War I, work began on the S.55 flying boat, which was the first of many successful seaborne aircraft. The company's aircraft manufacturing plant was destroyed during World War II, and SIAI-Marchetti turned to helicopter manufacturing in the 1950s. Germany's Siebel Flugzeugwerke was established in 1937 as a Leichtflugzeugbau Klemm branch. The company manufactured military trainers and light aircraft, and was absorbed into Messerschmitt-Bölkow-Blohm in 1968. Skyleader a.s. is based in the Czech Republic as a manufacturer of light and ultralight aircraft. SPAD was an acronym for Société Pour L'Aviation et ses Dérivés, and was established in France in 1911. The SPAD S.XIII was the most widely used and effective of France's biplane fighters during World War I. Stampe et Vertongen was founded in Antwerp, Belgium in 1922. The company was renowned for its trainers, one of which was the popular Stampe SV.4.



|                      |                             |
|----------------------|-----------------------------|
| Plane                | SIAI-Marchetti SF.260       |
| Year of Introduction | 1966                        |
| Type                 | Aerobatics/Trainer Aircraft |
| Engine               | Lycoming O-540-E4A5         |
| Service Ceiling      | 19,000 ft (5,790 m)         |

The SIAI-Marchetti S.260 was used as a military trainer as well as an aerobatics aircraft. It was originally an Aviamilano design that was purchased by SIAI-Marchetti.



|                      |                         |
|----------------------|-------------------------|
| Plane                | SPAD S.XIII             |
| Year of Introduction | 1917                    |
| Type                 | Fighter Biplane         |
| Engine               | 8-cyl Hispano-Suiza 8Be |
| Service Ceiling      | 21,815 ft (6,650 m)     |

The SPAD S.XIII was designed on the back of the SPAD S.VII's success during World War I. It became one of the conflict's most successful fighters.



|                      |                       |
|----------------------|-----------------------|
| Plane                | SPAD S.VII            |
| Year of Introduction | 1916                  |
| Type                 | Fighter Biplane       |
| Engine               | V-8 Hispano-Suiza 8Aa |
| Service Ceiling      | 17,500 ft (5,335 m)   |

The SPAD S.VII was the inaugural model in a series of fighter biplanes produced by the French company. It was renowned for its sturdiness and excellent diving and climbing characteristics.



|                      |                         |
|----------------------|-------------------------|
| Plane                | Stampe SV.4C            |
| Year of Introduction | 1947                    |
| Type                 | Trainer /Tourer Biplane |
| Engine               | Renault 4-Pei           |
| Service Ceiling      | 20,000 ft (6,000 m)     |

The Stampe SV.4 was designed as a two-seat trainer or tourer. It was manufactured by Stampe et Vertongen in Belgium, and also by other manufacturers in Algeria and France.



|                      |   |
|----------------------|---|
| Plane                | Siebel SNCAC Martinet                     |
| Year of Introduction | 1945                                      |
| Type                 | Military Trainer/Light Transport Aircraft |
| Engine               | Renault 12S-00 x 2                        |
| Service Ceiling      | 24,600 ft (7,500 m)                       |

The SNCAC Martinet was designed in Germany and built in France. The French military took delivery of the aircraft, and some French airlines also used a small number of Martinets.



|                      |                                 |
|----------------------|---------------------------------|
| Plane                | KP-2 Skylander 200              |
| Year of Introduction | 1996                            |
| Type                 | Civil Utility Aircraft/Kitplane |
| Engine               | 4-cyl Rotax 912UL               |
| Service Ceiling      | Data Unavailable                |

The KP-2 Skylander 200 is a variant of the Kappa 77 KP-2U Sova. It is produced by Skylander in kit form for the home aircraft building enthusiast.



# SPARTAN - SOKO - SOPWITH

Spartan Aircraft was established in 1930 in Great Britain when Simmonds Aircraft was facing a severe financial crisis. The founder, Oliver Simmonds, had designed and built the Simmonds Spartan two years earlier, and Whitehall Securities invested in the company, which then became Spartan Aircraft. The first Spartan aircraft was the Spartan Arrow, which was followed by the Spartan Three Seater. The company discontinued operations in 1935. Yugoslav aircraft manufacturer Soko was established in 1950 and became one of the Yugoslav Air Force's main aircraft manufacturers. In the 1980s, Soko was involved in the development of supersonic jet fighters, but war and later embargos halted the project. Later work included a new series of aircraft that included the G-4 Super Galeb. The Sopwith Aviation Company was established in Great Britain in 1912 and began making military aircraft. Sopwith produced over 16,000 aircraft during World War I, and the production workload was shared among other manufacturers, which included Beardmore, Clayton & Shuttleworth and Fairey among others. Civil aircraft followed after the war, but the company would never again achieve the success it enjoyed with the Sopwith Pup, Camel and other iconic models built when the aircraft first came into its own as a military weapon.



|                      |                         |
|----------------------|-------------------------|
| Plane                | Sopwith F.1 Camel       |
| Year of Introduction | 1920                    |
| Type                 | Fighter Biplane         |
| Engine               | 9-cyl Clerget 9B Rotary |
| Service Ceiling      | 19,000 ft (5,791 m)     |

The Sopwith F.1 Camel was the main variant of the Sopwith Camel. The Camel was a ground attack aircraft during World War I.



|                      |                       |
|----------------------|-----------------------|
| Plane                | Spartan Arrow         |
| Year of Introduction | 1931                  |
| Type                 | Biplane - Two Seat    |
| Engine               | De Havilland Gipsy II |
| Service Ceiling      | Data Unavailable      |

The Spartan Arrow was released on the back of the earlier Simmonds Spartan's success. The prototype was powered by a Cirrus Hermes engine.



|                      |                     |
|----------------------|---------------------|
| Plane                | Sopwith Pup         |
| Year of Introduction | 1916                |
| Type                 | Fighter Biplane     |
| Engine               | Le Rhône Rotary     |
| Service Ceiling      | 17,500 ft (5,600 m) |

The Sopwith Pup was an extremely successful fighter during World War I. It debuted on the Western Front in 1916 and was eventually replaced as aircraft design and engineering rapidly advanced.



|                      |                         |
|----------------------|-------------------------|
| Plane                | Sopwith Triplane        |
| Year of Introduction | 1916                    |
| Type                 | Fighter Triplane        |
| Engine               | 9-cyl Clerget 9B Rotary |
| Service Ceiling      | 20,500 ft (6,250 m)     |

The Sopwith Triplane was the first military triplane to enter operational service anywhere in the world. In 1917, the aircraft became part of the Royal Naval Service until the Sopwith Camel was introduced later in the year.



|                      |                         |
|----------------------|-------------------------|
| Plane                | Spartan 7X Executive    |
| Year of Introduction | 1936                    |
| Type                 | Luxury Private Aircraft |
| Engine               | Jacobs L-5 Radial       |
| Service Ceiling      | 24,000 ft (7315 m)      |

The Spartan 7X Executive was a variant of the Spartan W Executive, and also went by the name of Standard Seven. Only one model was built, and the difference between the two models lay in the tail sizes.



|                      |                                 |
|----------------------|---------------------------------|
| Plane                | Spartan 7W Executive            |
| Year of Introduction | 1936                            |
| Type                 | Luxury Private Aircraft         |
| Engine               | 9-cyl Pratt & Whitney R-985-AN3 |
| Service Ceiling      | 24,000 ft (7315 m)              |

The Spartan 7W Executive was built with an all-metal fuselage and had a retractable undercarriage. It was purchased by wealthy enthusiasts around the world.

|                      |                                      |
|----------------------|--------------------------------------|
| Plane                | Soko G-2 Galeb                       |
| Year of Introduction | 1965                                 |
| Type                 | Jet Trainer / Ground Attack Aircraft |
| Engine               | Viper ASV.11 Mk 22-6 Turbojet        |
| Service Ceiling      | 39,375 ft (12,000 m)                 |

The Soko G-2 Galeb was in development during the 1950s. The aircraft was in production between 1965 and 1985, during which time nearly 250 units were built.



# SUKHOI

The Sukhoi Design Bureau was established in Russia in 1939 by Pavel Sukhoi as a state owned entity. Following the collapse of the Soviet Union in 1988, the company was privatised and became The Sukhoi Aviation Military Industrial Combine as the Su-25TM aircraft was released. Russia's new government then merged Sukhoi with Tupolev, Mikoyan, Irkut, Ilyushin and Yakovlev and created the United Aircraft Corporation. Sukhoi and Mikoyan were housed in the same plant. Since the 1980s, Sukhoi has produced a number of ground breaking fighter aircraft, and today the company's renown continues with the development of its fifth generation of stealth fighters. Additionally, Sukhoi continues to design and manufacture commercial regional airliners on the strength of its history. Landmark models include the Su-30, the Sukhoi T-50, the Su-25 Grach and the Superjet 100 among others.



|                      |                              |
|----------------------|------------------------------|
| Plane                | Sukhoi Su-34                 |
| Year of Introduction | 1990                         |
| Type                 | Strike Fighter               |
| Engine               | Lyulka AL-31FM1 Turbofan x 2 |
| Service Ceiling      | 49,200 ft (15,000 m)         |

The Sukhoi Su-34 was designed as a replacement for the Sukhoi SU-24, and was intended for tactical deployment in a number of roles. It was capable of operating in all weather conditions, carrying out tactical bombing, interdiction, attack and reconnaissance duties.



|                      |                             |
|----------------------|-----------------------------|
| Plane                | Sukhoi Su-30                |
| Year of Introduction | 1996                        |
| Type                 | Multi Role Fighter          |
| Engine               | Saturn AL-31FL Turbofan x 2 |
| Service Ceiling      | 56,800 ft (17,300 m)        |

The Sukhoi Su-30 was designed for operation in all weather situations as a multi role fighter. The model was originally an upgrade of the Sukhoi Su-27.



|                      |                                   |
|----------------------|-----------------------------------|
| Plane                | Sukhoi Su-25 Grach                |
| Year of Introduction | 1981                              |
| Type                 | Jet Fighter                       |
| Engine               | Soyuz/Gavrilov R-195 Turbojet x 2 |
| Service Ceiling      | 23,000 ft (7,000 m)               |

The Sukhoi Su-25 was designed for close air support to Soviet ground forces. The prototype first flew in 1975, and went into production in 1978 in Georgia.



|                      |                                   |
|----------------------|-----------------------------------|
| Plane                | Sukhoi SU-27                      |
| Year of Introduction | 1985                              |
| Type                 | Fighter Aircraft                  |
| Engine               | Saturn/Lyulka AL-31F Turbofan x 2 |
| Service Ceiling      | 62,523 ft (19,000 m)              |

The Sukhoi Su-27 was originally intended to compete against the USA's F-15 Eagle and F-14 Tomcat. It sported advanced avionics and was a highly manoeuvrable and sophisticated aircraft.



|                      |                              |
|----------------------|------------------------------|
| Plane                | Sukhoi PAK-FA T-50           |
| Year of Introduction | 2018                         |
| Type                 | Stealth Fighter              |
| Engine               | NPO Saturn 117 (AL-41F1) x 2 |
| Service Ceiling      | 65,000 ft (20,000 m)         |

The T-50 is the prototype model of the Sukhoi PAK-FA. The aircraft was designed to operate in more than one role, and is part of Sukhoi's fifth generation fighter program.



|                      |                                     |
|----------------------|-------------------------------------|
| Plane                | Sukhoi Su-35                        |
| Year of Introduction | 2014                                |
| Type                 | Jet Fighter                         |
| Engine               | Saturn 117S (AL-41F1S) Turbofan x 2 |
| Service Ceiling      | 59,100 ft (18,000 m)                |

The Sukhoi Su-35 was built by KnAAPO (Komsomolsk-on-Amur Aircraft Production Association) in the Russian Far East. The multi role fighter was equipped with twin engines.



|                      |                                      |
|----------------------|--------------------------------------|
| Plane                | Sukhoi Su-24                         |
| Year of Introduction | 1974                                 |
| Type                 | Supersonic Attack Aircraft           |
| Engine               | Saturn/Lyulka AL-21F-3A Turbojet x 2 |
| Service Ceiling      | 36,090 ft (11,000 m)                 |

The Sukhoi Su-24 was designed as an all-weather supersonic attack aircraft. The model had side-by-side seating for its crew and was the first USSR aircraft equipped with a digital integrated navigation and attack system.



# SUPERMARINE - TACHIKAWA

## TAYLORCRAFT - TEMCO

Supermarine began life in 1913 as Pemberton-Billing Ltd., and was sold three years later to become the Supermarine Aviation Works Ltd. A number of Schneider Trophy wins preceded Vickers-Armstrongs acquiring the company and keeping the Supermarine name. The first of the company's land aircraft was the Spitfire, which became the saviour of Britain during the 1940 Battle of Britain. Other significant models followed and included the Swift and the Scimitar, before Vickers-Armstrongs became part of the British Aircraft Corporation. The Tachikawa Aircraft Company was established in Japan in the 1920s and produced training aircraft. During World War II, the company manufactured a number of significant fighter and bomber aircraft, including the Mitsubishi A6M Zero. In later post-war years, Tachikawa produced a number of training aircraft before turning to component manufacturing. Taylorcraft Aviation has been manufacturing aircraft for more than seven decades and was renowned for its early Cub J-2 model. Light aircraft were produced during World War II for observation, training and liaison purposes, and the company continued to prosper in the post-war years. The Temco Aircraft Corporation was formed in Texas, USA when World War II ended. Notable aircraft during the 1950s included the Temco TT-1 Pinto and the Temco D-16 Twin Navion among others.



|                      |                            |
|----------------------|----------------------------|
| Plane                | Supermarine Spitfire Mk IX |
| Year of Introduction | 1946                       |
| Type                 | Fighter Aircraft           |
| Engine               | Rolls-Royce Merlin 61      |
| Service Ceiling      | 44,500 ft (13,563 m)       |

The Spitfire Mk IX was one of many variants of the Supermarine Spitfire, which was first released in 1938. Ten of the models were exported to India, and others went to the Irish Air Corps.



|                      |                       |
|----------------------|-----------------------|
| Plane                | Spitfire Mk.1         |
| Year of Introduction | 1938                  |
| Type                 | Fighter Aircraft      |
| Engine               | Rolls-Royce Merlin II |
| Service Ceiling      | 30,000 ft (9,144 m)   |

The Supermarine Spitfire Mk. 1 was designed as a front line attack aircraft and served in World War II from the beginning of the conflict until the end. It was designed by Reginald J. Mitchell.



|                      |                       |
|----------------------|-----------------------|
| Plane                | Tachikawa Ki-9        |
| Year of Introduction | 1935                  |
| Type                 | Training Aircraft     |
| Engine               | Hitachi Ha-13a Radial |
| Service Ceiling      | 19,030 ft (5,800 m)   |

The Tachikawa Ki-9 was a training aircraft used by the Imperial Japanese Army Air Force during World War II. It was responsible for training many Japanese pilots, and was known by the Allies as the 'Spruce'.



|                      |                        |
|----------------------|------------------------|
| Plane                | Spitfire Mk. II        |
| Year of Introduction | 1939                   |
| Type                 | Attack Aircraft        |
| Engine               | Rolls-Royce Merlin XII |
| Service Ceiling      | 30,500 ft (9,296 m)    |

In 1939, the Spitfire Mk. I was upgraded with a new Rolls-Royce engine. It was the first of the Spitfires to be produced at the factory of Lord Nuffield in Castle Bromwich.



|                      |                                |
|----------------------|--------------------------------|
| Plane                | Temco TT Pinto                 |
| Year of Introduction | 1959                           |
| Type                 | Jet Trainer                    |
| Engine               | Teledyne CAE VJ69-T-9 Turbojet |
| Service Ceiling      | 30,000 ft (9,145 m)            |

The Temco TT Pinto was designed for use as a jet trainer by the US Navy. Early models were based at the US Navy's Florida Air Training Command facility and were used for demonstration and training purposes.



|                      |                        |
|----------------------|------------------------|
| Plane                | Temco D-16 Twin Navion |
| Year of Introduction | 1953                   |
| Type                 | Civil Aircraft         |
| Engine               | 4-cyl Lycoming O-320   |
| Service Ceiling      | 20,000 ft (6,096 m)    |

Design of the Temco D-16 Twin Navion was based on the Ryan Navion, which was converted from a single-engined aircraft to a twin-engined model.



|                      |                            |
|----------------------|----------------------------|
| Plane                | Taylorcraft B              |
| Year of Introduction | Late 1930s                 |
| Type                 | General Aviation Monoplane |
| Engine               | 4-cyl × Continental C-85   |
| Service Ceiling      | 17,000 ft (5,182 m)        |

The Taylorcraft B was designed as a general aviation aircraft. It was available as both a land and float plane, and was constructed of steel and doped fabric.



# TUPOLEV

The Tupolev Design Bureau was established in Moscow, Russia in 1922 and was headed by Andrei Tupolev. Tupolev's first factory in Moscow was an earlier one used by Germany's Junkers, who had secretly avoided the restrictions placed on them in the aftermath of the war by setting up in Russia. The first Tupolev aircraft designed were all-metal models based on what had been left behind by Junkers, and the correlation between the two manufacturers was clear in the corrugated skins of early Tupolev models. Tupolev went on to produce bombers for World War II, with the Tu-2 an extremely successful model. The jet age dawned for Tupolev with the Tu-16 bomber, and it was followed by a number of models designed to counter US developments during the Cold War. Passenger airliners followed, as did supersonic military aircraft in the 1960s. In the 1980s, Tupolev developed a supersonic strategic bomber and then switched to subsonic passenger and civil aircraft after the Cold War ended in 1988. Today, Tupolev continues to develop both military and civil aircraft.



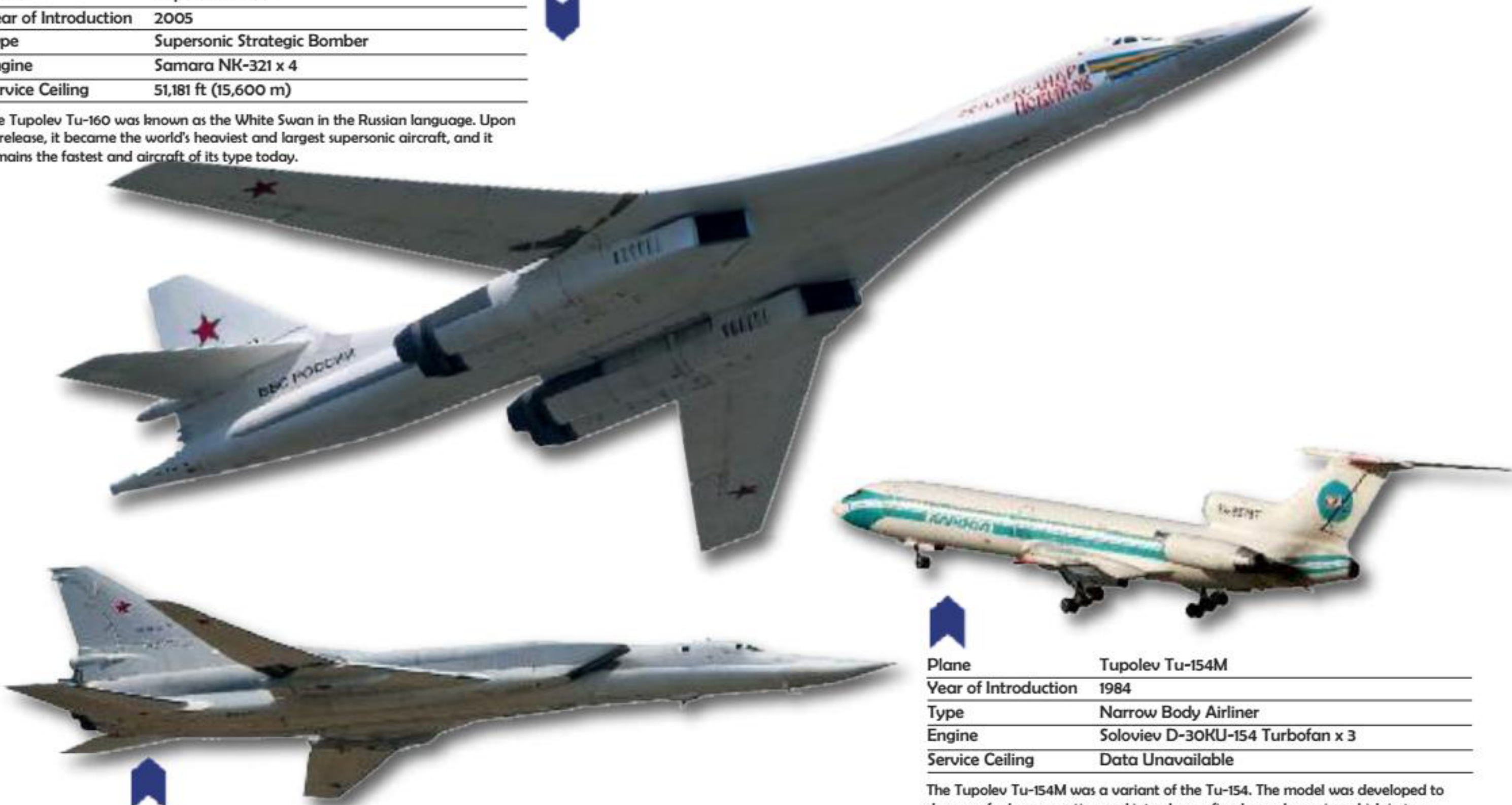
|                      |                                   |
|----------------------|-----------------------------------|
| Plane                | Tupolev Tu-95                     |
| Year of Introduction | 1956                              |
| Type                 | Strategic Bomber/Missile Platform |
| Engine               | Kuznetsov NK-12M Turboprop x 4    |
| Service Ceiling      | 45,000 ft (13,716 m)              |

The Tupolev Tu-95 was designed as a missile platform and strategic bomber. A maritime patrol and a passenger liner derivative were also released, with the former designated the Tu-142 and the latter the Tu-114.



|                      |                             |
|----------------------|-----------------------------|
| Plane                | Tupolev Tu-160              |
| Year of Introduction | 2005                        |
| Type                 | Supersonic Strategic Bomber |
| Engine               | Samara NK-321 x 4           |
| Service Ceiling      | 51,181 ft (15,600 m)        |

The Tupolev Tu-160 was known as the White Swan in the Russian language. Upon its release, it became the world's heaviest and largest supersonic aircraft, and it remains the fastest and aircraft of its type today.



|                      |                              |
|----------------------|------------------------------|
| Plane                | Tupolev Tu-22M               |
| Year of Introduction | 1972                         |
| Type                 | Long Range Strike Bomber     |
| Engine               | Kuznetsov NK-25 Turbofan x 2 |
| Service Ceiling      | 43,500 ft (13,300 m)         |

The Tupolev Tu-22M was a supersonic long range bomber produced during the Cold War. Regardless of their age, many Tu-22Ms remain in service with the Russian Air Force today.



|                      |                               |
|----------------------|-------------------------------|
| Plane                | Tupolev Tu-134                |
| Year of Introduction | 1963                          |
| Type                 | Narrow Body Airliner          |
| Engine               | Soloviev D-30-II Turbofan x 2 |
| Service Ceiling      | 39,040 ft (12,100 m)          |

The Tupolev Tu-34 was in production from 1966 until 1984. Early versions sported a distinctive glazed nose, and all Tu-134s were designed to operate on unpaved airstrips.



|                      |                       |
|----------------------|-----------------------|
| Plane                | Tupolev Tu 154B-2     |
| Year of Introduction | 1968                  |
| Type                 | Narrow Body Airliner  |
| Engine               | Kuznetsov NK-8-2U x 3 |
| Service Ceiling      | 39,700 ft (12,100 m)  |

The Tupolev Tu 154B-2 was a variant of the Tu-154. Changes included the capacity for an additional 20 passengers, as well as a minor modernisation.



|                      |                                  |
|----------------------|----------------------------------|
| Plane                | Tupolev Tu-154M                  |
| Year of Introduction | 1984                             |
| Type                 | Narrow Body Airliner             |
| Engine               | Soloviev D-30KU-154 Turbofan x 3 |
| Service Ceiling      | Data Unavailable                 |

The Tupolev Tu-154M was a variant of the Tu-154. The model was developed to decrease fuel consumption and introduce refined aerodynamics, which in turn produced a lower cost aircraft capable of a greater range.

|                      |                         |
|----------------------|-------------------------|
| Plane                | Tupolev Tu-214          |
| Year of Introduction | 1996                    |
| Type                 | Narrow Body Airliner    |
| Engine               | Aviadvigatel PS-90A x 2 |
| Service Ceiling      | 39,700 ft (12,100 m)    |

The Tupolev Tu-214 is a variant of the Tu-204, but was built at a different facility than its predecessor. Differences between the models include the addition of a left-hand full size fuselage door and a change in the location of fire doors.



|                      |                             |
|----------------------|-----------------------------|
| Plane                | Tupolev Tu-204 200C         |
| Year of Introduction | 1995                        |
| Type                 | Medium Range Cargo Aircraft |
| Engine               | Rolls-Royce RB211-535E4 x 2 |
| Service Ceiling      | 39,700 ft (12,100 m)        |

The Tupolve Tu-204 200C was the cargo aircraft variant of the Tu-204. Heavier and capable of a longer range, only one 200C model was built.



# TECNAM - TERRAFUGIA - VALTION - VICKERS

Costruzioni Aeronautiche Tecnam was established in 1986 as a light aircraft designer/manufacturer and a maker of aircraft components. Today, the company has three production facilities, with two based in Italy and one in the USA. Terrafugia is a current and recent aircraft manufacturer based in Massachusetts, USA. Today, the company is developing a 'roadable' aircraft and a flying car. Valtion Lentokonetehtäas was established as an aircraft manufacturer in 1928. Originally based in Helsinki, Valtion produced its own seaplanes, as well as British aircraft under license. In the post-World War II years, Valtion was renamed 'Valmet' and then went through a number of name changes, acquisitions and associated subsidiaries from the 1960s. In 1996, the company was renamed Patria Finavitec Oy. The early Vickers story was a complex one that saw the emergence of Vickers Ltd in Surrey, England in 1911, and its subsequent expansion into both a manufacturer and a flying school in the following year. In 1927, Vickers merged with Armstrong Whitworth to create Vickers-Armstrongs Ltd, and the new entity acquired Supermarine in 1928. The company was nationalised in 1960 and merged with a number of other manufacturers to become the British Aircraft Corporation. Today, Vickers is part of BAe.



|                      |                       |
|----------------------|-----------------------|
| Plane                | Terrafugia Transition |
| Year of Introduction | 2009                  |
| Type                 | Light Sport Aircraft  |
| Engine               | Rotax 912ULS          |
| Service Ceiling      | Data Unavailable      |

The Terrafugia Transition was in development for three years before its release. The model is equipped with a number of features, including a Synon Skyview avionics system, an optional autopilot and an airframe parachute.



|                      |  |
|----------------------|--|
| Plane                | Vickers VC-10                          |
| Year of Introduction | 1964                                   |
| Type                 | Long Range Jet Airliner                |
| Engine               | Rolls-Royce Conway Mk 301 Turbofan x 4 |
| Service Ceiling      | 43,000 ft (13,105 m)                   |

The Vickers VC 10 was designed for a number of non-standard environments and runway situations, especially those located in Africa. The aircraft achieved a world record crossing of the Atlantic, which was only surpassed by Concorde in later years.



|                      |                     |
|----------------------|---------------------|
| Plane                | Tecnam P92 JS Echo  |
| Year of Introduction | After 1993          |
| Type                 | Light Aircraft      |
| Engine               | Rotax 912S          |
| Service Ceiling      | 14,760 ft (4,500 m) |

The Tecnam P92 JS Echo was an upgraded variant of the P92 Echo. It featured shortened wings and a redesign of its engine cowling and fairings.



|                      |                  |
|----------------------|------------------|
| Plane                | Tecnam P2002 JF  |
| Year of Introduction | 2012             |
| Type                 | Light Aircraft   |
| Engine               | Rotax 912 S2     |
| Service Ceiling      | Data Unavailable |

The Tecnam P2002 JF is a variant of the Tecnam P2002 Sierra. The model is equipped with a new variable-pitch propellor and was available with hand controls to accommodate disabled pilots.



|                      |                                |
|----------------------|--------------------------------|
| Plane                | Vickers Wellington             |
| Year of Introduction | 1938                           |
| Type                 | Long Range Medium Bomber       |
| Engine               | Bristol Pegasus Mark XVIII x 2 |
| Service Ceiling      | 18,000 ft (5,490 m)            |

The Vickers Wellington was designed in the inter-war years and featured a groundbreaking geodesic fuselage, which was designed by Barnes Wallis. The aircraft was a significant contributor for the British and Commonwealth forces during World War II.

|                      |                       |
|----------------------|-----------------------|
| Plane                | Valtion VL Viima II   |
| Year of Introduction | 1936                  |
| Type                 | Biplane Trainer       |
| Engine               | Siemens-Halske Sh 14A |
| Service Ceiling      | 12,139 ft (3,700 m)   |

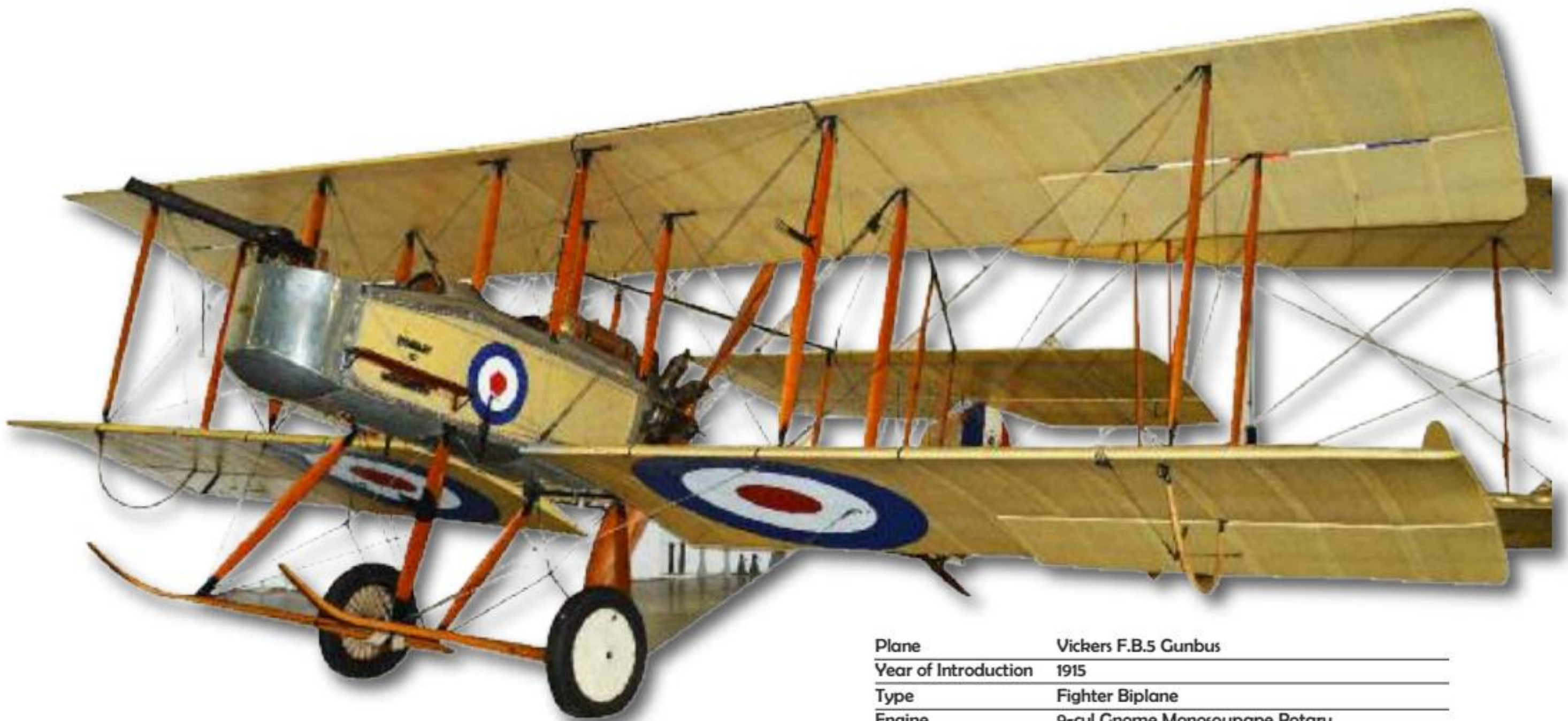
The VL Viima II was a variant of the Valtion VL Viima. The Finnish Air Force took delivery of 20 Viima IIs, and two more were produced for the Finnish Air Defence Guild.





# VICKERS - VIKING - VULCANAIR - WESTLAND

Vickers produced an inordinate number of aircraft during the 20th century, and the list included the Wellington bomber, the Vickers Vampire, Vimy and Vixen, a number of Canadian Vickers models, the famous 'Bouncing Bombs' of World War II and a long list of airliners that included the famed Vickers Viscount. Viking Aircraft was established in Wisconsin, USA in 1998 as the producer of plans for homebuilt aircraft. Two of its best known models are the Viking Cygnet and the Viking Dragonfly. Vulcanair is a current aircraft manufacturer based in Italy. The Company's designs are mainly the work of Stelio Frati and Luigi Pascale, and are generally observation aircraft. Westland Aircraft was established in 1915 in Somerset, England. During World War II, the most notable of its aircraft were the Lysander, which served in a liaison role, and the Whirlwind, a cannon-equipped fighter aircraft. Following the war, Westland moved into helicopters, and also produced notable aircraft such as the Westland Wyvern strike fighter. In 1961, Westland was merged with a number of aircraft manufacturers to form the British Aircraft Corporation, with its helicopter division merged with others to become Westland Helicopters.



|                      |                                |
|----------------------|--------------------------------|
| Plane                | Vickers F.B.5 Gunbus           |
| Year of Introduction | 1915                           |
| Type                 | Fighter Biplane                |
| Engine               | 9-cyl Gnome Monosoupape Rotary |
| Service Ceiling      | 9,000 ft (2,743 m)             |

The Vickers F.B.5 Gunbus was a two-seat pusher type biplane used during World War I. It was armed with a .303 Lewis Gun, which was operated by an observer who was seated in front of the engine nacelle.



|                      |                        |
|----------------------|------------------------|
| Plane                | Westland Lysander      |
| Year of Introduction | 1938                   |
| Type                 | Liaison Aircraft       |
| Engine               | Bristol Mercury Radial |
| Service Ceiling      | 21,500 ft (6,550 m)    |

The Westland Lysander was used in the inter-war years and later during World War II. The changing face of the conflict saw the aircraft put to use in clandestine operations behind enemy lines. Its ability to land on short, rugged airstrips made the model ideal for working with the French Resistance.



|                      |                                 |
|----------------------|---------------------------------|
| Plane                | Vickers Varsity                 |
| Year of Introduction | 1951                            |
| Type                 | Crew Trainer                    |
| Engine               | 14-cyl Bristol Hercules 264 x 2 |
| Service Ceiling      | 28,700 ft (8,750 m)             |

The Vickers Varsity was designed as a crew trainer for Britain's RAF. It remained in service for 25 years, and was later developed to create a number of twin-engined variants also designed as trainers.



|                      |  |
|----------------------|--|
| Plane                | Vickers Vanguard Type 953                    |
| Year of Introduction | 1960   |
| Type                 | Turboprop Airliner                           |
| Engine               | Rolls-Royce Tyne RTy.11 Mk 512 Turboprop x 4 |
| Service Ceiling      | 30,000 ft (9,145 m)                          |

The Vickers Vanguard Type 953 was a variant of the Vickers Vanguard. It operated as a 135-seat all-economy passenger airliner, with the option of a 127-seat mixed class variant.

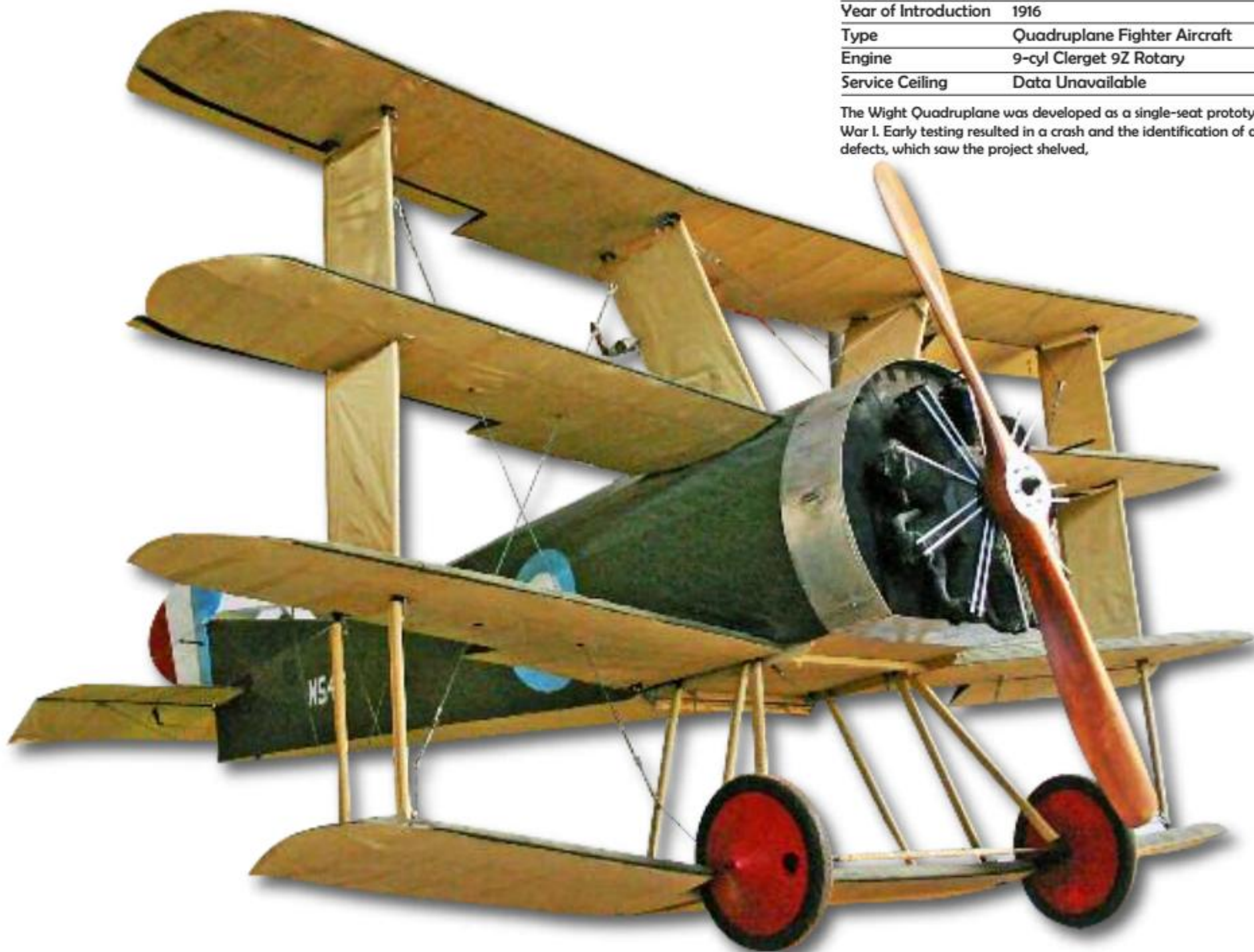


# WHITE - XI'AN - XTREMEAIR - ZENITH

J. Samuel White was a Victorian era shipbuilding company, and in 1912, the company began producing aircraft on Britain's Isle of Wight. The company name subsequently became Wight Aircraft, and produced a flying boat in 1913, as well as assembling Short Brothers aircraft. During World War I, the company developed a prototype of the Wight Quadruplane, but the aircraft was discontinued in 1918. China's Xi'an Aircraft Company was established in the late 1950s in the Shaanxi Province. The manufacturer developed a range of military aircraft and was in joint partnership with the country's 603rd Aircraft Design Institute. Today, Xi'an produces China's largest military aircraft - the Xian Y-20. XtremeAir is a German aircraft company and designs aerobatic aircraft. One of the company's popular models is the Sbach 300, which won a number of championships. The Zenith Aircraft Company was established in Missouri, USA in 1992. The company designs, develops and manufactures kit aircraft that include two-seat and four-seat models. Most of the company's aircraft meet FAA specifications for light sport flying.

|                      |                              |
|----------------------|------------------------------|
| Plane                | Wight Quadruplane            |
| Year of Introduction | 1916                         |
| Type                 | Quadruplane Fighter Aircraft |
| Engine               | 9-cyl Clerget 9Z Rotary      |
| Service Ceiling      | Data Unavailable             |

The Wight Quadruplane was developed as a single-seat prototype during World War I. Early testing resulted in a crash and the identification of a number of core defects, which saw the project shelved.





|                      |                       |
|----------------------|-----------------------|
| Plane                | XtremeAir Sbach 300   |
| Year of Introduction | 2012                  |
| Type                 | Aerobatic Aircraft    |
| Engine               | 6-cyl Lycoming IO-580 |
| Service Ceiling      | Data Unavailable      |

The XtremeAir Sbach 300 is a carbon fibre constructed aircraft, and is produced in ready-to-fly form rather than as a kitplane. The company designation for the aircraft is the XA41.



|                      |                         |
|----------------------|-------------------------|
| Plane                | Zenair CH 600           |
| Year of Introduction | 1984                    |
| Type                 | Light Kitplane Aircraft |
| Engine               | Stratus EA 81 & Others  |
| Service Ceiling      | 12,000 ft (3,692 m)     |

The Zenair CH 600 is a variant of the Zenair Zodiac. It was designed as a primary trainer and is available in both kit and ready-to-fly format.

|                      |                             |
|----------------------|-----------------------------|
| Plane                | XtremeAir Sbach 342         |
| Year of Introduction | 2012                        |
| Type                 | Aerobatic/Touring Aircraft  |
| Engine               | 6-cyl Lycoming AEIO-580-B1A |
| Service Ceiling      |                             |

The XtremeAir Sbach 342 is the tandem variant of the Sbach 300 model. It was designed with fixed landing gear and has a three-bladed propellor.



|                      |   |
|----------------------|---|
| Plane                | Xian MA60                                   |
| Year of Introduction | 2000  |
| Type                 | Turboprop Airliner                          |
| Engine               | Pratt & Whitney Canada PW127J Turboprop x 2 |
| Service Ceiling      | 25,000 ft (7,620 m)                         |

The Xian MA60 is a stretched variant of the Xian Y7-200A. The original model was based on the Antonov AN-24, which had excellent STOL capabilities and was able to operate in remote areas.



# YAKOVLEV

The JSC A.S. Yakovlev Design Bureau was established in 1934 with Alexander Sergeyevich Yakovlev at the helm. In the inter-war years, the bureau developed a number of early aircraft, which began in 1927 with the AIR-1 when Yakovlev was with Russia's Department of Light Aircraft. During World War II, Yakovlev developed a number of extremely successful fighter aircraft, and the post-war years saw the company continue to develop ground breaking models throughout the jet age. Known by most pilots and enthusiasts as the 'Yak', significant models have included the Yak-3 and Yak-9 fighters, the Yak-11 and Yak-52 trainers, and the Yak-40 range of airliners. In 2004, Yakovlev was acquired by Russia's Irkut, and the holding company was then merged into the United Aircraft Building Corporation with Sukhoi, Mikoyan, Tupolev and Ilyushin. Yakovlev has also recently designed the Pchela drone reconnaissance aircraft.

|                      |                      |
|----------------------|----------------------|
| Plane                | Yakovlev Yak-9       |
| Year of Introduction | 1942                 |
| Type                 | Fighter Aircraft     |
| Engine               | V-12 Klimov M-105 PF |
| Service Ceiling      | 30,000 ft (9,100 m)  |

The Yakovlev Yak-9 was developed during World War II as a lighter replacement for the Yak-7. Arriving on the front line in 1942, the aircraft became Russia's most mass produced military fighter to date.





|                      |                        |
|----------------------|------------------------|
| Plane                | Yakovlev Yak-3         |
| Year of Introduction | 1944                   |
| Type                 | Fighter Aircraft       |
| Engine               | V-12 Klimov VK-105PF-2 |
| Service Ceiling      | 35,000 ft (10,700 m)   |

The Yakovlev Yak-3 was released during World War II as one of the smallest and most capable light fighters in the European Theatre. Following the end of the war, the Yak-3 continued in service with the Polish and Yugoslav Air Forces.



|                      |                             |
|----------------------|-----------------------------|
| Plane                | Yakovlev Yak-40K            |
| Year of Introduction | 1968                        |
| Type                 | Commuter Trijet             |
| Engine               | Ivchenko AI-25 Turbofan x 3 |
| Service Ceiling      | 26,240 ft (8,000 m)         |

The Yakovlev Yak-40K was a variant of the Yak-40. The original model was the world's first commuter aircraft produced as a trijet. In 1970, the USSR began exporting the Yak-40 and its variants.

|                      |                          |
|----------------------|--------------------------|
| Plane                | Yakovlev Yak-54          |
| Year of Introduction | 1993                     |
| Type                 | Aerobatic/Sport Aircraft |
| Engine               | AOOT M-14P Radial        |
| Service Ceiling      | 13,125 ft (4,000 m)      |

The Yakovlev Yak-54 heralded the beginning of a new generation within Russia's aerobatic aircraft community. The model was a development of the earlier single-seat Yak-55M.



|                      |                     |
|----------------------|---------------------|
| Plane                | Yakovlev Yak-11     |
| Year of Introduction | 1947                |
| Type                 | Trainer Aircraft    |
| Engine               | Shvetsov ASh-21     |
| Service Ceiling      | 23,295 ft (7,100 m) |

The Yakovlev Yak-11 was in service between 1947 and 1962. Codenamed 'Moose' by NATO, the aircraft was a successful standard trainer used in nearly 20 countries in Africa, the Middle East and Asia.



|                      |                                 |
|----------------------|---------------------------------|
| Plane                | Yakovlev Yak-130                |
| Year of Introduction | 2010                            |
| Type                 | Subsonic Trainer Aircraft       |
| Engine               | Progress AI-222-25 Turbofan x 2 |
| Service Ceiling      | 42,660 ft (12,500 m)            |

The Yaklovev Yak-130 was designed cooperatively between Aermacchi and Yakovlev. The company has promoted it as a light attack aircraft, although it entered service as a Russian Air Force trainer.



|                      |                              |
|----------------------|------------------------------|
| Plane                | Yakovlev Yak-52              |
| Year of Introduction | 1979                         |
| Type                 | Aerobatic Trainer            |
| Engine               | 9-cyl Vedeneyev M-14P Radial |
| Service Ceiling      | 13,125 ft (4,000 m)          |

The Yakovlev Yak-52 was initially designed as an aerobatic trainer for the USSR's DOSAAF training school. It remains in licensed production in Romania as Aerostar's lak-52.





# ZLÍN AVIATION

ZLÍN Aviation was established in Czechoslovakia in 1934 and began producing a range of gliders and trainers. During World War II, the company produced trainers for Germany while Czechoslovakia was occupied, and models included the Klemm Kl 35 and the Bücker Bü 181. Following the war, the company was nationalised and later given the name of Moravan. The aerobatic Z-26 Trener became a landmark model for the company at that time, and was produced in large numbers. Other releases included the Z-37 Čmelák crop duster and several new aerobatic and training models. Following the end of the Communist regime, the company became private again, but with a sales network in disarray, production numbers fell. By the turn of the century, Moravan was bankrupt, and it was taken over in 2006 by CzechAircraft. Between 2006 and 2010, production of the Z-143L and Z-242L continued, and the models were followed by upgraded variants. ZLÍN Aircraft was founded in 2009 to take over from the bankrupt Moravan, purchasing all of the rights to the company's model range.



|                      |                    |
|----------------------|--------------------|
| Plane                | Zlin C-205         |
| Year of Introduction | 1948               |
| Type                 | Two Seat Trainer   |
| Engine               | 6-cyl Avia M 137AZ |
| Service Ceiling      | Data Unavailable   |

The Zlin C-205 was designed as a low-wing aerobatic monoplane that was ideal for training purposes. The aircraft had an all-metal wing.



|                      |                     |
|----------------------|---------------------|
| Plane                | Zlín Z 242          |
| Year of Introduction | 1978                |
| Type                 | Trainer             |
| Engine               | 6-cyl Avia M 337    |
| Service Ceiling      | 18,050 ft (5,500 m) |

The Zlín Z 242 was a variant of the Zlín Z 42. It sported a more powerful 200 hp engine, and had the enlarged airframe of the Zlín Z 142.



|                      |                     |
|----------------------|---------------------|
| Plane                | Zlín Z-142          |
| Year of Introduction | 1970                |
| Type                 | Trainer             |
| Engine               | 6-cyl Avia M 137A   |
| Service Ceiling      | 18,050 ft (5,500 m) |

The Zlín Z-142 was a development of the Zlín Z 42. The model became the most popular aircraft in the company's product line.

|                      |                          |
|----------------------|--------------------------|
| Plane                | Zlín Z-226               |
| Year of Introduction | After 1948               |
| Type                 | Basic Trainer            |
| Engine               | 6-cyl Walter Minor 6-III |
| Service Ceiling      | 14,764 ft (4,500 m)      |

The Zlín Z-226 was a variant of the Zlín Trener, which in turn was a development of the Zlín Z-26. The trainer was more powerful than its forbears, many of which competed successfully in aerobatic competitions.



|                      |                     |
|----------------------|---------------------|
| Plane                | Zlín Z-326          |
| Year of Introduction | 1959                |
| Type                 | Trainer             |
| Engine               | 6-cyl Avia M 137AZ  |
| Service Ceiling      | 14,764 ft (4,500 m) |

The Zlín Z-326 was a variant of the Zlín Trener or Z-26. The Z-326 variant was equipped with an electric retractable undercarriage, which became a standard feature on later models.



|                      |                                  |
|----------------------|----------------------------------|
| Plane                | Zlín Z-526                       |
| Year of Introduction | 1959                             |
| Type                 | Acrobatic Trainer                |
| Engine               | Lycoming AEIO-360 or Avia M 137A |
| Service Ceiling      | 17,060 ft (5,200 m)              |

The Zlín Z-526 was available in single and two-seat variants. The two-seat variant was known as the Zlín Trener-Master.



|                      |                     |
|----------------------|---------------------|
| Plane                | Zlín Z 42 MU        |
| Year of Introduction | 1972                |
| Type                 | Trainer             |
| Engine               | 6-cyl Avia M 137A   |
| Service Ceiling      | 18,050 ft (5,500 m) |

The Zlín Z 42 MU was a variant of the Z 42 and its Z 42M variant. The later model was fitted with a new propellor, the pitch of which was pilot controlled.



